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Address manuscripts and other communications to Bureau of Economic and Business Research, Box 658, Station A, Champaign, Illinois.

Current Criticisms of the Interstate Commerce Commission

George W. Wilson

Associate Professor of Transportation, Indiana University

REGULATORY COMMISSIONS possess vast powers, and in the final analysis, they wield this power with virtually no restraint except the basic wisdom and ethics of the commissioners themselves. The extent of this nearly absolute power is, of course, a result of the practical exigencies of public utility regulation and not a deliberate usurpation of power by the commissions. Indeed, many commissions would be happy to have their power more circumscribed since this would reduce the area of discretion and lighten the administrative burdens. The appeal of the "quiet life" is as substantial for regulatory agencies as for private monopolists. Yet because the fact of substantial unrestrained power remains, it is essential to examine this fourth branch of government from time to time to check the wisdom and ethics so essential to effective regulation. In all the heated discussions of regulatory commissions which took place last year, there has been little indication of any need for concern with ethics in the ICC. The criticism against the ICC, therefore, reduces to questions of the basic economic intelligence of the commissioners. In the past several years three major criticisms have been made. These criticisms are (1) the failure of the commission to adopt the cost criterion and use it consistently when determining reasonable rates in intercarrier competition; (2) excessive delays in granting general rail rate increases; and (3) deliberate oligopolization of and restrictions upon the common carrier trucking industry. The purpose of this paper is to analyze these criticisms to assess their merits and the extent to which ICC policy needs revision on their account.

The Problem of Costs

Perhaps the most fundamental criticism is that made most penetratingly by Langdon[1] and Williams[2] who charge that the commission has not accepted cost as controlling in determining rates in intercarrier competition and is, in

[1] Jervis Langdon, Jr., "The Regulation of Competitive Business Forces: The Obstacle Race in Transportation," *Cornell Law Quarterly*, Vol. 16, No. 7 (Fall, 1955).

[2] Ernest W. Williams, Jr., *The Regulation of Rail-Motor Rate Competition* (New York: Harper, 1958).

fact, inconsistent in its policy in this area.

There is no doubt that ICC decisions have lacked consistency and do not always stress cost. Sometimes cost is accepted as controlling, sometimes the "share the traffic" criterion is used, and on occasion, alternative standards are erected. Furthermore, in various cases the relative weights accorded to the several criteria differ, often for no apparent reason.

Economists have long held that cost-based rate-making is the only way to obtain an optimum allocation of traffic among the several media of transport. The economic argument is logically impeccable but the purpose of the Interstate Commerce Act encompasses more than economic efficiency. The interests of national defense and the postal services must also be considered. It should be perfectly clear that a transport system which is optimum from a commercial or strictly economic point of view may be substantially below optimum from the national defense viewpoint. For one thing, military considerations require excess capacity on a permanent basis; this represents an obvious economic misallocation. Again, the kind (and location) of transport equipment essential for national defense is undoubtedly very different from strictly commercial requirements. Thus, it is not so much the ICC which is inconsistent; it is the multi-purpose national transportation policy which virtually imposes inconsistency and in many instances requires the cost criterion to yield to the interests of national defense.[3] It is not suggested that militar needs should be ignored but simply tha their consideration precludes a *complet* reliance on economic criteria.

Perhaps more fundamental is the ex treme complexity of finding costs i particular instances.[4] The costs whic are essential for an optimum allocatio of traffic are, of course, marginal o out-of-pocket costs. Though fully allo cated costs are most appropriate a practical rate minima,[5] these are bui up by adding to marginal cost a pr rata share of fixed and joint cost hence, a knowledge of the former is a essential prerequisite regardless of one view of the appropriate cost concep for rate minima. Let us analyze th difficulties of ascertaining marginal co in transportation.

The marginal costs specifically ass ciated with any given traffic are tho which could have been avoided had th traffic not been carried. Thus margin cost is the extra cost incurred divide by the extra "output" where the latt

[3] The famous rail-barge controversy is good example of the inconsistency betwe promotional (i.e., military) policy and ec nomic efficiency. See Harbeson's discussio "Transport Coordination and the Rail-Bar Question," 46 *Illinois Law Review* 7 (1951).

[4] In the interest of brevity, the well-kno discrepancies between real economic and a counting costs will be ignored. However, far as they differ and transport managem relies upon accounting cost as an approp ate guide, achievement of an optimum tra port system becomes an illusory goal exc by accident.

[5] See my article, "Effects of Value Service Pricing Upon Motor Common C riers," *Journal of Political Economy*, Vol. (August, 1955), and Truman C. Bigha "Regulation of Minimum Rates in Transp tation," *Quarterly Journal of Econom* Vol. 61 (February, 1947).

is normally construed in terms of ton-miles or their equivalent (i.e., marginal cost $= \frac{\Delta \text{ total cost}}{\Delta \text{ traffic or } \Delta \text{ ton-miles}}$). For different pieces of traffic, marginal cost so defined will vary unless the increment in total costs bears the same relationship to the increase in output for each separate piece of traffic. Given the variety of elasticities of rail or motor transport demand for the various shippers, this is highly unlikely. That is, the traffic increment resulting from any given rate decrease depends upon the elasticity of transport demand. Since cost is a function of volume, it is evident that the cost of any given increase in traffic is partly a function of demand elasticity. Transport demand elasticities are highly variable among commodities and over time. Hence, marginal cost of any traffic increment induced by a rate reduction is likewise highly variable. As Williams suggests, "cost may not . . . be disassociated from the volume of traffic anticipated under the proposed rates."[6] As a consequence there is no such thing as a single marginal cost of the *whole* output. There are a variety of marginal costs depending upon the elasticity of transport demand relative to the incremental costs for each addition to traffic.

Furthermore, the magnitude of marginal cost varies with the relative importance of such traffic to the total. Eastman has pointed out that "out-of-pocket expense tends to increase disproportionately as this fraction [i.e., ratio of the particular traffic involved to total traffic] increases in size."[7] Again marginal cost is a function of the regularity with which the traffic is offered and tends to decrease as the degree of regularity increases.[8] Likewise traffic which helps balance outbound and inbound movements will incur fewer costs than traffic which increases or creates imbalance so that marginal cost is also a function of the direction of movement. Relative volume, regularity, and direction of movement influence the magnitude of costs directly assignable to particular traffic.

Another condition affecting marginal cost is the degree of excess capacity. If there is considerable slack, marginal cost will be low and vice versa if operations are at or near capacity. This is familiar. What is often neglected is the geographical incidence of the degree of excess capacity. That is, the usual conception of a changing $\frac{\text{output}}{\text{capacity}}$ ratio involves only the time dimension. With a transport firm having a variety of routes, however, it is likely that some routes will be congested but not others. If additional traffic appears on a more congested route segment, the marginal cost will be greater than if the increased demand occurred on a less congested route. The costs over different routes may also vary because of physical conditions (e.g., different gradients and different degrees of circuity). Marginal

[6] Williams, *op. cit.*, p. 177.

[7] Joseph B. Eastman, "The Adjustment of Rates Between Competing Forms of Transportation," *American Economic Review, Proceedings*, Vol. 30 (March, 1940), pp. 127-28.

[8] See, for example, W. G. Scott, "What Differentials in Rates?" in *Essays on Traditional Differentials in Railway Rate-Making* (New York: Simmons-Boardman, 1956), pp. 10-11.

cost then varies over each route segment. If the routes cover a large geographical area, there may also be pecuniary differences in resource costs. A spatial as well as temporal view is essential for grasping the full complexity of varying transport capacities and different route costs.

Again the time span of the transport firm is crucial in assessing the magnitude of any given marginal cost. Since marginal costs are "escapable" it follows that the more costs which are escapable (or avoidable), the greater will be marginal cost. The amount of costs which are avoidable in this sense depends on one's time horizon: the longer the time horizon, the greater the magnitude of escapable costs. This is considerably more complex than the simplified short- and long-run cost concepts, for cost commitments expire discontinuously through time and their sums vary widely. Arthur Lewis points out that

> as each commitment falls due for renewal, say for x years, all those due to expire during those x years have to be considered, since if any of those will not pay and will be discontinued, this may not pay either. The expiry of a single commitment may therefore bring large numbers under review and cause a great jump in immediately escapable cost. And, as each commitment is renewed, short-run cost, which had risen high to include renewal cost, now sinks again to the level of the temporarily inescapable. There is no such quantity as "the marginal cost" of output . . . ; there is a large variety of costs to choose from depending merely on how far ahead you choose to look, and this collection of costs itself varies from day to day, as current commitments alter.[9]

The magnitude of marginal cost then, is found to vary with (1) th different elasticities of transport de mand, (2) the degree of temporal an spatial excess capacity, (3) geograph cal cost differences, (4) the time spa and contractual arrangements of th various suppliers of transport, (5) th relative importance of the particula traffic, (6) whether the additional tra fic helps to balance the movement not, and (7) whether the traffic offered sporadically or regularly.

There remains yet another difficult Cost refers to the cost of somethin What is the "thing" which transport tion agencies produce? Tradition analysis suggests that the unit of tran portation output is the ton-mile. R cently the adoption of the ton-mile the output unit has been questione Milne has argued that "it is more co venient . . . to regard the train-journ . . . and the truck-journey . . . as o unit of output"[10] and distinguishes t from "the pricing unit" which he co strues as "the individual consig ment."[11] Troxel has argued that thou "students of transportation refer hab ually to such units as ton-miles . . . c loads and truckloads, [only] a sm part of total costs are variable direc . . . in relation to these 'final' pro ucts. Indeed, the organization of tra port operations is not much embrac in ton or ton-mile . . . or even lo

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[9] W. Arthur Lewis, *Overhead Costs* (London: George Allen and Unwin, 1949), pp. 11-12. See also, A. E. T. Griffi "Cost Variations in Transport," *Bri Transport Review,* Vol. 4 (August, 195 pp. 473-75.

[10] A. M. Milne, *The Economics of Inl Transport* (London: Pitman, 1955), 121-22.

[11] *Ibid.,* p. 125.

units."[12] It is apparent that these views are particularly relevant to rail transport. As the medium par excellence of mass transportation, the technical features of railways are scarcely geared to production of single units so small as a ton-mile. If a train is worth running at all between any two points, it has a productive capacity of many thousands of ton-miles. A "train-journey" would therefore appear to be the basic output unit relevant to the provision of rail service.[13] But no railway offers for sale a "train-journey." The sales units run to much smaller dimensions and the ton-mile appears to be the appropriate sales unit (i.e., freight rates are quoted in terms of cents per 100 pounds for various distances; thus the sales unit is a combination of weight and distance which is readily convertible to "ton-miles"). Variable (non-joint) costs are fairly readily assignable to *output* units but since there is such a vast difference between the sales and output unit in rail transport, how are the costs per *sales* unit to be assessed? For any train-journey a variety of goods is typically transported. Since the greater proportion of the variable train-journey costs would be incurred whether many or few separate consignments were involved, there exists a substantial amount of variable output costs which cannot be assigned to each commodity or consignment on a *cost* basis. This does not even consider the joint costs involved in the back haul or the fixed costs applicable to the entire business which, as is well known, also defy allocation on a cost basis. The discrepancy between the output and sales unit therefore makes inapplicable the cost principle in pricing the units to be sold. In short, the extremely abbreviated sales unit relative to the output unit creates the problem of substantial cost indivisibility. All variable costs are divisible only if the output and sales units coincide. Where they do not coincide, many variable costs become indivisible and the greater the amount by which the output unit exceeds the pricing (or sales) unit, the greater the proportion of variable costs which become indivisible (that is to say, unassignable on a cost basis). Likewise, the greater the ratio of fixed to variable costs, the greater the magnitude of unassignable costs. Since both the ratio of the size of the output to the sales unit and the ratio of fixed to variable costs are very much larger with respect to rail transport than with respect to truck transport, it follows that the magnitude of indivisible or nonassignable costs is much greater for rail than for truck transport. Thus, the problems of obtaining a cost-based rate structure are much more complex for railways than for trucks. Yet the cost criterion is urged with particular reference to rail transport.

In brief, a cost-based rate structure for railways becomes an illusory goal unless by *costs* we refer only to the identifiable or divisible costs of each sales unit. With the vast gulf between the size of the output and sales units and given the large amounts of fixed

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[12] Emery Troxel, *Economics of Transport* (New York: Rinehart, 1955), pp. 93-94.

[13] A further complication is that the number of available sales units in a train-journey is variable with the number of box cars. A "train" has a wide range of alternative capacities.

and joint costs, the assignable costs per sales unit become negligible. Even if we take a longer-run view, which we must, and compute costs for various sales units, there is still left a large body of unassignable costs which must be recovered if private operation is to continue. These can only be recovered on a non-cost basis. It is in this sense that one may suggest the illusory goal of a cost-based structure *even assuming we can ascertain the variable costs of any given output unit or class of units.* When we reconsider the decisions required to fulfill this latter assumption, basing the rate structure on cost of service becomes an enormously complex undertaking. In view of these considerations, it is scarcely surprising that the railroads have not developed detailed and accurate measures of cost or that the ICC is reluctant to grant freedom to set rates based on an elusive out-of-pocket cost concept. This does not, however, mean that we should not endeavor to assign as many cost items as possible to particular sales units. On the contrary, since a cost-based rate structure is essential to the fulfillment of national transportation policy, a more determined search for costs is, at least by implication, a congressional mandate. What the foregoing problems suggest is that we approach the problem of cost with a full awareness of what is meant by economic costs and the shifting nature of these costs as circumstances alter. This is not a gospel of despair, merely one of caution.[14]

[14] Portions of the foregoing have appeared in my article, "Needed Changes in Railway Pricing," *Official Proceedings of the New York Railroad Club,* February 3, 1959, pp. 39-54.

The Appropriate Cost Concept for Rate-Making

A final problem remains, namely Should the costs upon which rates are to be based in intercarrier competitior be fully allocated costs or margina costs? Locklin has argued that "economic reasoning would suggest that . . the full cost of the service, including a return on capital, should be used."[15] Bigham has suggested that minimum rates be based upon "the fully allocated costs of the low-cost agency."[16] Similarly Eastman[17] and Wilson[18] have argued in favor of full cost. On the other hand, the marginal cost principle carried over from general welfare economics has frequently been urged.[19]

One of the arguments against full cost rate-making is that much of the allocation of the indirect costs is essentially arbitrary and that some contribution to indirect costs is better than none. Pegrum has argued that "the average cost approach necessitates arbitrary allocation of joint and common costs, thereby giving an impression of scientific accuracy that is unwarranted by the facts."[20] He argues also that "so long as a carrier can offer the service at rates which more than cover th

[15] D. P. Locklin, "Transport Coordination and Rate Policy," *Harvard Business Review* Vol. 15, No. 4 (Summer, 1937), p. 421.

[16] Bigham, *loc. cit.,* p. 228.

[17] Cited in Locklin, *loc. cit.,* pp. 426-27.

[18] George W. Wilson, "Effects of Value of Service Pricing," *loc. cit.,* pp. 337-44.

[19] See, for example, T. C. Koopmans "Optimum Utilization of the Transportation System," *Econometrica,* Vol. 17 (Supplement, 1949), pp. 136-46, and Dudley Pegrum, *Price Competition in Transportation* (Chicago: Railway Progress Institute pp. 26-30.

[20] Pegrum, *op. cit.,* p. 30.

costs directly traceable to the service . . . the carrier should be permitted to seek the business."[21]

There are several things which need to be said about this view. First, if variable costs are as elusive as indicated earlier, they would appear to be little less arbitrary than allocations of the indirect costs. Second, with rail transport there is a substantial bundle of costs which cannot be traced to the unit to be priced; and if intercarrier competition is as pervasive as Pegrum would like it to be, an over-all railway profit is not attainable if numerous rates fall to a level slightly in excess of the directly traceable costs unless noncompetitive rates are raised extremely high. High noncompetitive rates create serious distortions in the rate structure, lead to discrimination, and invite the kind of competition which precludes adoption of value-of-service pricing adequate to recoup all the indirect costs. In other words, there comes a "critical" point in the operation of an enterprise with large elements of indirect costs beyond which further application of the marginal cost principle can only lead to economic loss with a corresponding withdrawal of capital or the elimination of operations for which rates not much above directly traceable costs have been quoted. Eastman expressed this position as early as 1936:

> If it were proposed to apply this theory of making rates to a comparatively small percentage of the traffic, the threat would be less disturbing, but this is far from the situation. For a long time railroad passenger traffic has been regarded as a byproduct, not able to sustain its fair share of the burden of meeting full costs, taxes and fixed charges, to say nothing of profit, and in freight-rate cases of broad scope we have frequently been asked by the carriers to treat the passenger deficit as one of the costs which the freight traffic must bear. The situation is much the same as to less-than-carload freight traffic. It is the same as to much freight traffic which is competitive. . . .
>
> If this tendency continues and is encouraged, it will not be long before the byproduct will be bigger than the product. . . .[22]

The problem remains that though "cost has never been out of mind . . . it has not always been in sight"[23] and furthermore the commission is required to consider noneconomic criteria.[24] It is not that the commission lacks economic intelligence in its failure to use cost as consistently controlling in intercarrier competition; it is rather that the need to reach specific decisions with some semblance of dispatch precludes complete adoption of a criterion based as yet upon such nonpragmatic foundations, even if economic factors were 100 percent controlling, which they are not. Those who condemn the commission on cost grounds would do well to reread the purposes of the act and dig more deeply into the groundwork of costs. Thus the cost criticism does not reflect on the wisdom of the ICC, though it does point up the need for economists to fill another empty economic box.

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[21] *Ibid.*, p. 28.

[22] J. B. Eastman in "Pick-up and Delivery in Official Territory," 218 ICC 441, 492-93 (1936).

[23] 101 ICC 513.

[24] I have discussed some of these noneconomic roles in "Railroads Have to Play Dual Roles," *Railway Age*, September 1, 1958.

General Rate Increases

The major point here is the problem of delay. If a general freight-rate increase is essential to bolster inadequate earnings, then it should be granted at the time of request. Yet this cannot be done since time is required to assess its justification. During the period of investigation, then, if it turns out to be favorable to such an increase, the carriers suffer an inevitable economic penalty. Minimization of the delay in rendering a decision is therefore of greatest importance. Interim increases help to mitigate the problem but do not, of course, eliminate it. As a consequence there is nothing whatever that can be done to *eliminate* delay (without turning the commission into a "mere computer") and hence some degree of economic hardship is necessarily involved in all those general rate cases which justify an increase.[25] Even though some delay is inevitable, a subsidy or grant equivalent to the revenues forgone during the interim period would help eliminate the economic penalty caused by the delay. It is hard to believe that our "economy-minded" government would entertain such a proposal but this is the only feasible expedient if we do not wish to saddle common carriers with additional economic penalties.

Of perhaps greater import is the need for the commission to restrain general rate increases. For almost 100 years the railroads have acted as if the aggregate elasticity of rail transport demand were zero, though they have frequently recognized that this is not the case for specific traffic. As a result, when earnings decline below the "fair" level, the immediate railroad reaction is to apply for an increase in freight rates generally. However, especially since World War II, the aggregate elasticity of rail transport demand has been increasing[26] so that rate increases serve to accentuate the shift away from the rails. Motor common carriers generally follow rail rate increases but because of the vast unregulated elements in the trucking industry (i.e. over 70 percent in terms of ton-miles), later readjustments in specific rates need to be made, and often result in rates lower than the rail rates. Consequently, rail revenues equivalent to the rate increase do not materialize and numerous subsequent readjustments in the rate structure are needed to prevent further rail traffic erosion.

The upshot is that the commission does well to investigate and delay or deny general rate increases, especially under current circumstances. The time is not far off when *general* rate increases can no longer seriously be used as devices for augmenting total earnings. Specific rate increases on blocks of commodities whose rail transport demand is deemed inelastic is the only workable expedient although the range of commodities falling in this category is being progressively narrowed by the rise of alternative transport facilities. If this is true, the most sensible way t

[25] No problem emerges where rate increases are found to be unjustified.

[26] The percent increase in railway revenues relative to the percent increase in rates has progressively declined since World War II. (See *Traffic World*, March 9, 1957, pp. 26-29.) While this does not *prove* increasing elasticity, it nonetheless strongly suggests i

increase rail revenues is to *reduce* rates over the ever widening range of commodities whose elasticity of rail transport demand is greater than unity. There is encouraging evidence that this approach is being employed more and more frequently by the railroads. Although retaliatory rate reductions by competitive media will serve to reduce the rail revenue accretions, this should not act as a deterrent if rails are truly the low-cost carriers.

Nothing has been said here about administrative ineptitude as a factor in the lengthening of the time lag between a request for an increase and the final ICC decision largely because the charge of bureaucratic inefficiency is easy to make but hard to document. Would any commission be deemed efficient if it acceded to or denied every request for rate increases instantaneously? The commission's productivity, defined as the number of decisions rendered per time period, would be enhanced but no government agency (outside of the Patent Office) would, or should, use this as an index of efficiency. There is, moreover, such a thing as "due process" and the right of all those affected to be heard, and this takes time. The conflict between equity and dispatch is a most vexing one but few would abandon equity, although it must be admitted that the ICC is often too scrupulous in letting those whose interests are at best remote have their day in court. Nevertheless the railroads are among the most flagrant intervenors in specific cases where their direct interests are virtually nonexistent and hence should be the last group to complain when others exercise their right to protest.

The problem of delay does not appear to be entirely due to bureaucratic lethargy and the commission does not deserve all the criticism heaped upon it on this score. When one considers the tremendous day-to-day work load of the ICC, the wonder is not that delays are so long but that they are so short.

The Promotion of Oligopoly in the Trucking Industry

The belief that the trucking industry is one of the last areas wherein pure competition appears to be technologically feasible currently possesses the stature of a piece of national folklore. As a result, the trend toward increasing concentration has been greeted with much dismay in many circles.[27] Clearly, if the folklore is true, then the increased concentration must be attributable to other than "naturally operative economic forces." And what group is more capable of performing this anti-competitive deed than the ICC? Hence the commission has been roundly blistered as the villain in the piece.

There are three specific complaints against the commission in this regard. It is alleged, first, that the commission's policy on new entrants is too restrictive; second, that the commission unduly prefers larger firms in its merger cases but restrains smaller firms from making acquisitions; and third, that the excessive number of route and commodity restrictions on existing certificated carriers creates an incentive to merge as

[27] Walter Adams and James B. Hendry, *Trucking Mergers, Concentration and Small Business: Analysis of Interstate Commerce Commission Policy, 1950-56,* prepared for Select Committee on Small Business, June, 1957.

Table 1. Marginal Cost per Ton-Mile for Varying Combinations of Weight and Distance, Motor Common Carriers

(Dollars per ton-mile)

Distance (miles)	Weight (pounds)									
	100	200	300	598	1,458	3,178	7,132	16,808	25,904	38,265
1,000......	.098	.072	.062	.052	.046	.042	.038	.032	.029	.026
900......	.105	.076	.065	.055	.048	.044	.039	.032	.029	.026
800......	.115	.082	.071	.058	.050	.046	.040	.033	.030	.027
700......	.127	.090	.077	.062	.053	.048	.042	.034	.030	.027
600......	.144	.101	.085	.068	.058	.052	.045	.035	.031	.028
500......	.168	.115	.097	.077	.064	.057	.049	.037	.032	.029
400......	.203	.138	.114	.089	.073	.064	.053	.040	.034	.030
300......	.261	.174	.143	.110	.090	.077	.063	.045	.037	.033
200......	.378	.247	.202	.151	.120	.101	.081	.054	.044	.038
100......	.730	.469	.376	.277	.214	.178	.138	.082	.064	.054
50......	1.428	.905	.719	.518	.395	.322	.240	.132	.100	.084

Source: *Cost of Transporting Freight by Class I Motor Common Carriers of General Commodities—Eastern-Central Territory—1956*, Interstate Commerce Commission, Bureau of Accounts, Cos Finding, and Valuation, Statement No. 4-57, October, 1957.

the only feasible way to overcome the restraints. Any one of these would suffice to promote oligopoly in regulated trucking but all three together give the appearance of a concerted and premeditated plan.

Before looking at these charges in detail, let us first examine the validity of the "conventional wisdom." Is the trucking industry naturally competitive and would it reach a position of stable equilibrium if let alone? The trucking industry has several well-known attributes which imply competitive features. Fixed costs are not significantly high and the equipment units and other real capital requirements are relatively small.[28] These features promote ease of entry and rapid adjustment of capacity to changed conditions. In addition, there is a closer relationship between the sales and output units (i.e truck-journey) than for any other forr of transport; this limits the magnitud of cost indivisibilities.

These conditions are essential bu not sufficient for the competitive ou come postulated by economic theor Indeed, there are other features of th trucking industry which are ant competitive in character.

Trucking is a decreasing-variable-co industry in the short-run. That is, wit a given plant and equipment, the co per ton-mile varies inversely with th traffic volume. Table 1 indicates fo specific shipment sizes the behavior costs per ton-mile. If it is safe to co clude that large volume is general associated during any fiscal period wi large average load and long avera haul, then it is evident that a situatic of short-run decreasing costs exists motor transport. Even if this is untenable conclusion, increased rou utilization leads to decreasing costs p

[28] One of the reasons for these features is, of course, absence of ownership in the roadbed. In a real economic sense, this makes the comparison of actual rail and truck costs rather misleading.

vehicle-mile.[29] Thus, increased total mileage, independently of longer average hauls, lowers per unit costs. Similarly, increased tonnage handled per time period leads to decreasing terminal and line-haul costs per ton-mile. Loading costs rise less than proportionately to weight handled over the dock and, of course, are independent of distance. Line-haul costs are relatively insensitive to weight. Thus, increased tonnage, even if average load remains constant, involves lower per unit costs. Generally, however, increased tonnage permits heavier loadings per truckload either by enabling a heavier consolidation of LTL traffic or by affording an increase in back-haul traffic. It is not, then, unreasonable to correlate decreasing costs per ton-mile with increases in total tonnage handled or miles run per time period with a given plant and equipment. Of course, the cost decrease stops whenever traffic impinges upon available equipment.

Until this point is reached (i.e., some sort of optimum ratio of traffic to capacity), the fact of short-run increasing returns implies the possibility of cutthroat competition as firms struggle for more volume. Furthermore, the existence of joint costs leads to cutthroat competition and excessive instability where traffic that is back haul for one carrier is primary haul for another.[30] It is, of course, true that the short run in this industry is highly abbreviated since capital turnover is so rapid. This will have long-run consequences since susceptibility to frequent bouts of cutthroat competition is scarcely conducive to re-establishment of new firms after abolition of temporarily redundant capital. The long-run outcome which seems most probable is the establishment of a *modus vivendi* involving rate bureaus and other rationalizing (i.e. non-price competitive) restraints. In any event, these cost features imply that the competitive model is invalid for truck transport. Furthermore, the output of the various trucking firms is far from homogeneous and indeed there are substantial quality elements which differ widely from firm to firm. The sooner we reject the idea that transport firms supply homogeneous ton-miles of service, the sooner we shall be in a position to grapple with some fundamental problems in the economics of transport, but this is another story. Finally, trucking supply in each of the many geographic markets is not in a sufficiently large number of independent hands to preclude a recognized mutual interdependence and this is more of a natural than an artificial phenomenon. The existence of thousands of trucking firms over the entire United States does not lead to perfect competition *unless* there are such large numbers in *each* market. Since there are not, then, in each market the more normal situation appears to be one of oligopoly or, at best, monopolistic competition. A mere counting of numbers of firms nationally says nothing about local or regional market structures. There are, for example, many thousands of barbers but

[29] Merrill J. Roberts, "Some Aspects of Motor Carrier Costs: Firm Size, Efficiency, and Financial Health," *Land Economics*, Vol. 32 (August, 1956).

[30] Howard Nicholson, "Motor Carrier Costs and Minimum Rate Regulation," *Quarterly Journal of Economics*, Vol. 72, No. 1 (February, 1958).

they are not all competing with one another in the same market. A similar situation exists in the trucking industry.

The existence of these factors casts serious doubts upon the competitive nature of truck transport. One could just as legitimately presume the reverse modified only by the ease-of-entry characteristic. Thus, the folklore is, in fact, a myth. The trucking industry is not only not naturally competitive but, if let alone, would not exhibit tendencies toward stable equilibrium, as the history prior to the Motor Carrier Act amply demonstrates. The industry is undoubtedly *more* naturally competitive than rail or pipelines but this does not *ipso facto* imply the validity of the perfectly competitive model.

Thus, by reducing the degree of freedom of entry the ICC is simply facilitating an orderly trend toward concentration or alternatively maintaining the current degree of (admittedly precarious) stability. Without restriction of entry the purpose of the Motor Carrier Act would be thwarted. Whether the ICC is "too" restrictive or not, one cannot judge. If the ultimate situation in common carrier motor transportation is one of natural oligopoly in each market, then it may be desirable to speed up the process. No claims are made here for this teleology nor, if it is true, for the wisdom of accelerating the process. The important point is simply that the ICC is not necessarily flying in the face of naturally operative economic forces so that whether its policy on freedom of entry is too restrictive cannot reasonably be inferred from the fact of restriction itself.

Whether the commission unduly prefers acquisitions by larger firms is likewise debatable on the grounds mentioned above. Aside from this, there is no conclusive evidence that this is deliberate, despite the rather substantial documentation of Adams and Hendry. For example, it is altogether possible that the larger firms have been in the business longer, are more responsible and knowledgeable, and hence fit better into the merger criteria as implied in the national transportation policy. It may be, also, that larger firms have the time, staff, and resources to prepare a better case to present to the commission. Without premeditation these factors, if true, could lead to the results of which Adams and Hendry so bitterly complain.

Of crucial economic importance with respect to oligopolization is the belief that there are no economies of scale in the trucking industry. Though this belief is part of the competitive myth, it has nonetheless received some substantial statistical confirmation in recent studies.[31] The studies, however, do not show *dis*economies of scale. At worst they reveal that there are apparently no distinct economies. Roberts' study finds that the lowest per-unit costs result not so much from size as from average

[31] Roberts, *loc. cit.*, and New England Governors' Committee on Public Transportation, *Motor Freight Transport for New England*, Report No. 5, October, 1956.

length of haul and route utilization. With respect to the former, this rather clearly implies that end-to-end mergers may be desirable and even parallel mergers might enhance utilization. Thus it is possible that size may have beneficial effects upon the variables Roberts found of decisive importance, though more analysis of this is required. If there are no diseconomies of scale, firm size is economically indeterminate since efficiency is the same for all levels of output. This in turn means that "the state of competition cannot be defined, since the number of sellers is not discoverable."[32] The competitive presumption cannot legitimately be held under such circumstances. Rising long-run costs do not limit firm size; therefore why presume competitive structure from the recent studies of scale economies? Indeed, as indicated above, there are good reasons for believing that noncompetitive structures are more likely. It should also be mentioned that in the trucking industry, size correlates *reasonably* well with service in terms of availability of equipment, regularity of service, and financial responsibility. On grounds of service, there is at least a prima facie case for larger firms and oligopolization, though this is hard to document fully. The point is that the studies of scale-economies have nothing to do with service, only costs; yet service features are probably as important in the trucking industry as costs and rates. We need to consider both service and cost when discussing the pros and cons of bigness.

Finally, we come to the question of route and commodity restrictions. There is little doubt that these are excessive and cause serious diseconomies and loss of business for regulated carriers. On these grounds they are to be condemned. Most of these were instituted originally to preserve competitors and those firms already established. Regulation implies certain protective features not only to the public but, in the trucking industry, to the regulated carriers themselves. Although it is true that the existence of such restrictions gives an incentive to merge various existing operating authorities, it is not clear whether removal of such restrictions would enhance or reduce the degree of concentration. One suspects that in some markets elimination of the restrictions would stimulate competition which *might* persist in the longer run if new entry is blocked but that in other markets the increased competition might lead to bankruptcy, mergers, or some form of close alliance. The outcome cannot be generalized but it cannot be doubted that the restrictions should be removed regardless of the ensuing adjustments.

Conclusion

The totality of the arguments presented here indicates that the current criticism of the economic intelligence of

[32] E. H. Chamberlin, "Proportionality, Divisibility and Economies of Scale," *Quarterly Journal of Economics,* Vol. 62, No. 1 (February, 1948), p. 229.

the ICC is either misplaced or is based upon somewhat tenuous propositions with respect to the problems of cost finding and the competitive nature of the trucking industry. The basic problem appears to reside not so much with commission policy as with the current state of our knowledge of the economics of transportation. If this is the key the present confusion and inconsiste cies in national transportation polic the group to be brought before the b is not the commission but transportatio economists who have not yet fully r solved the perplexing economic natu of intercarrier relationships.

The Recent Questioning of Monetary Policy*

DAVID I. FAND

Committee for Economic Development

and

IRA O. SCOTT, JR.

Graduate School of Business, Columbia University

THE RECENT CONTROVERSY about monetary policy which has led, among other things, to a recommendation for a National Monetary Commission seems to be concerned less with the over-all effectiveness of monetary policy, if pursued vigorously, than with the possible undesirable consequences of using it as a principal weapon in an over-all stabilization program.[1] In the present paper some of the arguments currently made regarding the undesirability of using monetary policy as a principal weapon in our stabilization program will be reviewed.

Stabilization and Discrimination

Recent discussions of monetary policy have centered around the question, Does monetary policy "discriminate" against particular users of funds such as the homeowner, the small or new business, or the municipality and in favor of other users such as the large corporation or the established business?

It is impossible to define a stabilization policy that is neutral because any given policy must inevitably imply some arbitrary selection of goals. Since there is no norm, we cannot define favorable or unfavorable discrimination in an absolute sense. Discrimination is therefore essentially a relative concept; it can be given meaning only by comparing two situations. For example, when it is said that a given monetary policy is "unfair" or "discriminates" against, say, small business, the statement can only mean

* The authors are indebted to E. F. Denison and Herbert Stein for helpful suggestions and criticisms.

[1] On the recent controversy, and the question of the policy mix, see, for example, the following references and the literature cited therein: J. G. Gurley and E. S. Shaw, "Financial Aspects of Economic Development," *American Economic Review*, Vol. 45, No. 4 (September, 1955), pp. 515-38; Abba P. Lerner, *Economics of Employment* (New York: McGraw-Hill, 1951), pp. 258-63; Lawrence S. Ritter, "Income Velocity and Anti-Inflationary Monetary Policy," *American Economic Review*, Vol. 49, No. 1 (March, 1959), pp. 120-29; Arthur Smithies, "Uses of Selective Credit Controls," *United States Monetary Policy* (New York: The American Assembly, Columbia University, December, 1958), pp. 73-89; and W. L. Smith, "On the Effectiveness of Monetary Policy," *American Economic Review*, Vol. 46, No. 4 (September, 1956), pp. 588-606.

that the welfare losses of this particular monetary policy exceed those of other stabilization policies which are consistent with the given goals concerning price level, employment, income distribution, and growth.

We shall therefore define discrimination in this relative sense. An economic policy discriminates against all individuals or particular groups of individuals if there is another policy that can achieve the given national goals and which would leave the entire group or the particular group in a preferred position.[2] It is, in principle, possible to assess the change in welfare suffered by a particular group or by all members of society in substituting one stabilization policy for another.

Two consequences follow from this definition. First, since it is not possible to define a neutral stabilization policy, when critics object to a particular policy on the grounds of discrimination they must mean either that the welfare losses to all members of the society or to any one particular group are excessive, but only as compared with some alternative policy.[3] Second, since any stabilization policy involves gains and losses to various groups, public policy discussions would benefit if the effec of particular policies were both know and widely understood, and if the valu framework implicit in choosing a polic were made explicit.

The recent concern with the discrim inatory aspects of monetary policy ha several sources. Many believe (1) tha a "tight money" policy has undesirab consequences and, more importantl (2) that better alternatives are avai able. In addition, some questio (1) whether monetary policy is th general over-all quantitative, and pre sumably nondiscriminatory, credit con trol that they had formerly suppose and (2) whether, if monetary polic partakes of the character of a selectiv control, it compares favorably, in re gard to efficiency and equity, wit other kinds of general and selectiv controls.[4]

The possibility of discrimination thr

[2] By extending this approach, we could also define discrimination against a particular economic activity. For example, we could say that a monetary or fiscal policy which resulted in higher average long-term rates of interest over the cycle discriminated against residential construction.

[3] Although a particular policy may involve discrimination in either of these two senses, the reader will note that most of the recent discussion summarized in the next four sections is concerned with the latter type of discrimination which involves welfare losses to particular groups.

[4] Some writers distinguish between qua titative, or general controls, on the one han and qualitative, or selective controls, on th other, and favor the general controls, part because they, unlike the selective contro do not involve an explicit discrimination. I our view, the identification of these tw issues is misleading. Whereas it may b easier to recognize the particular groups wh may gain or lose when a selective control i instituted, it is not obvious that a selecti control always results in larger gains an losses than does a general control. W therefore feel that the issue of discrimina tion which deals with the magnitude of the gains and losses is not coextensive with th issue of general or selective controls whic deals with the determination of who th gainers and losers shall be. To bring th out more clearly, we define discriminatio in a relative sense. On this definition, ther fore, it makes sense to discuss the discrimi nation effects even in comparing two gener controls.

may arise in choosing (1) the goal of stabilization; (2) the strategy of stabilization (should demand be restricted or supply stimulated?); (3) the various means of implementing the stabilization policy (the monetary-fiscal-debt management mix); (4) the techniques of monetary policy.

The Stabilization Objective

Is it preferable that product prices remain stable, fall as productivity increases, or rise by some specified amount each year? The particular goal chosen is likely to affect the relative position of the debtor vis-à-vis the creditor and the wage-earner vis-à-vis the capitalist and is also likely to affect, among other things, the amount of capital formation and the rate of growth of output.

Suppose stable prices are chosen as the goal and this selection affects workers adversely in the sense that they would be better off if rising prices had been chosen. The goal of stable prices has therefore been challenged on the grounds that it discriminates against particular groups.

Also involved in this discussion are the distributional aspects, which received much attention in the last century during the Greenback and Silver controversies, and which are still a prime issue today. In addition, the relationship between the stabilization goal and the rate of growth of output is being emphasized.

The Stabilization Strategy

Most discussions of stabilization concern policies that will increase or decrease aggregate demand. Thus "tight money" reduces aggregate demand whereas "easy money" raises aggregate demand. But why is attention directed to aggregate demand in policy discussions? Three reasons are usually given: (1) that it is easier to control aggregate demand than aggregate supply; (2) that the effects on demand resulting from a given policy change are easier to predict; and (3) that most over-all disturbances in prices, employment, and output result from changes in demand — aggregate supply does not behave erratically — and that the policy correctives should deal with the source of the disturbance.

Policies, however, may be designed to affect supply, either by preventing the various suppliers of factors of production from raising their returns per unit of input even though the market situation would permit or by calling forth a greater volume of productive effort at the same rates of return.

For example, it may be supposed that increased antitrust activity may so affect factor supplies and product pricing as to shift the supply schedule of output to the right; thus aggregate supply is increased. Such an increase might offset the inflationary pressure.

It is conceivable, therefore, that the stabilization goal could be achieved by policies which operate on aggregate supply. If such a response from the various factors of production can be effected, this would constitute an al-

ternative means of achieving stability. Because they believe that in most circumstances there is considerable scope for increasing aggregate supply, some critics hold that stabilization measures which operate primarily on aggregate demand "discriminate," because the goal may be achieved through appropriate changes in supply.

The Implementation of Stabilization Policy

Suppose that society chooses stable product prices. Also assume that, to achieve this particular goal, the stabilization authorities will attempt to affect aggregate demand rather than aggregate supply. There is quite a bit of leeway in our reliance on tax, expenditure, and debt management policy on the one hand and monetary policy on the other. For example, to achieve a given level of aggregate demand, the authorities can substitute, over a fairly wide range, tighter money for higher taxes.

If, given the stabilization goal, monetary policy can be substituted for fiscal or debt management policy, it follows that the particular policy adopted is arbitrary in the sense that there are alternatives consistent with the over-all goal. Moreover, these alternatives between monetary and fiscal or debt management policy and among monetary policies are not likely to have the same distribution effects; it is obvious that a given policy may have an especially adverse effect on a particular group of individuals. These two related fact (1) that the choice among alternati policies is arbitrary and (2) that th alternatives are likely to have differen incidence effects, give rise to a numb of "discrimination" arguments.

Borrowers and Nonborrowers

Not all spending units require e ternally borrowed funds to finance the expenditures; and, among those uni that do borrow, there is great variatio in the degree of their dependence o debt funds. Suppose that inflatio threatens, the money supply is reduce interest rates rise, and the availabili of credit is reduced. Potential hom owners or municipalities — units th depend mainly on debt funds — con plain that they are being "discrim nated" against because this particul way of combating inflation has a ve sharp impact upon the availability funds to finance these expenditure Also new and growing businesses pro erly buttress this complaint by pointin to old, established enterprises which re on internal finance and retained ear ings.

Elastic and Inelastic Demands

The money market is similar to oth markets in that a given change in pri will have different effects on units wi different elasticities of demand. Wh interest rates rise, borrowers with elast demands will reduce their loans propo tionately more than will borrowers wi inelastic demands. Critics of moneta

policy cite this particular fact — the differential impact on different borrowers — as an argument against monetary policy on the grounds of discrimination.[5]

This line of reasoning has an obvious appeal to those who are out of sympathy with the workings of the price system. The argument is consistent, however, with a basic acceptance of the logic of the price system. Once it is granted that the decision to use monetary policy is arbitrary, this elasticity argument may be viewed as an argument against the use of an arbitrary policy rather than against the workings of the price system.

Alleged Imperfections in the Capital Markets

The use of monetary policy may give rise to another kind of "discrimination." It is often asserted that banks and other financial intermediaries do not ration credit on the basis of price alone. It is commonplace to hear that, no matter how stringent the conditions in the money market, the large corporation can readily obtain the funds it wants. This feeling rests on the notion that a financial institution will be most reluctant to disappoint a large customer for fear of losing that business. Consequently, even though the small business is as credit-worthy as the large corporation in terms of net worth, income prospects, and debt-equity ratios, its line of credit may be cut off completely or in part during periods of monetary restraint.

Especially hard hit by this type of non-price rationing are new businesses. A financial institution is likely to feel some obligation to its old customers even if they are small businesses. There is, therefore, a real possibility that new enterprises may experience greater difficulty in obtaining bank and other financing in periods of tight money.

In periods of monetary restraint additional sources of "discrimination" against small business may exist because of another imperfection in the capital market. An open market issue of bonds or notes is not economically feasible unless it is above a certain dollar amount. Should a large corporation experience difficulty in getting funds from financial institutions, it always has the option of going to the market directly. A small business does not have this option because the overhead in placing a small issue would result in exorbitant rates. In a more perfect capital market, pooling arrangements would make it possible for small firms to get open market funds at rates more nearly like those paid by the large corporation, and the absence of such pooling may there-

[5] The reader will note that we are not considering "monopolistic discrimination" where borrowers with inelastic demands pay higher rates for the same commodity than do borrowers with elastic demands. To the extent that such discrimination exists, it reflects monopolistic, non-competitive pricing by the financial institutions; it is therefore essentially unrelated to the choice of the stabilization program. The type of discrimination we are considering exists regardless of the market structure, since it results from a decision to use monetary policy instead of, say, fiscal policy.

fore be regarded as an imperfection. This difference in the respective abilities of large and small enterprises to obtain open market funds may therefore lead to "discrimination" in conditions of monetary restraint.[6]

The Execution of Monetary Policy

Assume that we have agreed on stable prices as a goal, on the situations in which it is appropriate to operate by way of aggregate demand or aggregate supply, and on the relative roles of monetary, tax, expenditure, and debt management policy. A central bank can carry out its mandate in a number of ways: it can vary reserve requirements; it can buy or sell bills, bonds, or a combination of these; it can vary the discount rate; and finally it can resort to direct, or qualitative, controls. Some critics argue that each of the general, or quantitative, controls tends to have a sharp impact on particular classes of borrowers or expenditures. Indeed, to focus attention on this possibility of "discrimination," some of these critics favor the use of selective controls to force policy-makers to consider the gains and losses of particul
groups explicitly.

A general increase in all interest rat
will tend to discourage capital expend
tures all along the line. In the actu
conduct of monetary affairs the mon
tary authorities are not likely, or pe
haps are unable, to vary all intere
rates "equally." In some circumstanc
they will vary reserve requirements;
others, they will rely upon open mark
operations. In some circumstances th
may buy or sell short-term governme
securities; in others, they may deal
long-term government securities.

Suppose that inflation threatens. Th
monetary authority has a choice amo
a number of techniques. Although th
choice may be of minor significance
far as the effectiveness of moneta
policy is concerned, it may have a su
stantial effect on various categories
capital expenditures. If the moneta
authority operates in longs and caus
long rates to rise relative to short rat
this may have a sharper impact on lon
term projects than if "equivalent" mo
etary restraint were applied through o
erating directly on short-term rates. Ju
as the raising of all rates will red
tribute funds, relatively or absolutel
from those with elastic demands
those with inelastic demands, the ra
ing of a particular rate will similar
redistribute funds from one category
expenditures to another.

It should be noted that the discrim
nation argument here rests not on t
relative use of monetary and fiscal p

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[6] Some critics who stress the small business argument have as their minimal program some special agencies, or devices, to provide credit for small and new enterprises, especially during periods of monetary restraint. They do not, however, spell out in detail what policies they would favor for the over-all stabilization problem. Some might favor a greater use of tax policy; others, selective controls; and there are, undoubtedly, some who are not concerned with stabilization — they favor what they call "a little" inflation.

icy but rather on the alternative ways in which the monetary authority can generate a desired degree of monetary restraint or ease.

The Institutional Impact of Monetary Policy

The issues raised thus far have abstracted from the institutions through which policy is carried out. The structure and function of financial institutions may add further discriminatory aspects to any given policy. Some of the recent criticism of monetary policy derives from such institutional aspects. Three related questions that have been raised about monetary policy will be considered.

(1) Does the relative growth of the nonbank intermediary make it more difficult for the monetary authorities to administer monetary policy?

(2) Does the use of monetary controls in the presence of nonbank intermediaries result in a relative decline of the commercial banking sector?

(3) If it does result in a relative decline of the commercial banking sector, does this "discriminate" against those who are dependent on bank borrowing?

The Effect of Nonbank Intermediaries

One of the outstanding structural developments in our financial system since the creation of the Federal Reserve System is said to be the decline in the proportion of total debt held by the commercial banking system. In addition to such new federal agencies as the Federal Land Banks, Federal Home Loan Banks, and government pension funds, we have seen a relative growth in the assets of savings and loan associations, life and property insurance companies, and mutual savings banks, and the creation of relatively new private institutions such as investment funds, finance companies, mortgage companies, and private pension funds.

Existing monetary controls apply directly only to the commercial banking sector of our financial system. The relative decline of the commercial banking system has reduced the proportion of the total of liquid assets on which the pressure of monetary controls is directly exerted. Some economists have therefore raised the questions (1) whether the response of the economy to a given Federal Reserve action has become weaker or subject to greater time lags and (2) whether the dangers of policy miscalculations have become much greater.

The liabilities of the nonbank financial intermediaries provide the public with financial assets which are substitutes for cash and which may therefore increase the elasticity of demand for money. In addition, the substitutability of these financial assets for cash may vary over the cycle so that the demand for money may fall during periods of monetary restraint.

Suppose a boom develops and the monetary authorities restrain the money supply. To achieve a given degree of monetary restraint a greater contrac-

tion of the commercial banking system is necessary than would otherwise be needed if the elasticity of demand for money is increased by the use of financial assets as cash substitutes. Moreover, a still greater contraction of the commercial banking system will be necessary if the profitability of the nonbank intermediaries permits them to expand their total assets. Finally, if the rise in interest rates in periods of monetary restraint creates incentives for the public increasingly to substitute these financial assets for cash, the increased demand for these financial assets can be satisfied almost indefinitely by the ability of the nonbank intermediaries to create these assets.[7] The relative or absolute contraction of the commercial banking system necessary to achieve a given amount of restraint rises *pari passu* with the decline in the demand for money.

This argument can be made even if it is assumed that, in the absence of nonbank intermediaries, central bank action would be partially offset by the incentive provided to the public in periods of high interest rates to economize on cash balances, creating a tendency for velocity to increase. Its proponents sometimes try to strengthen the argument by suggesting that in the absence of the financial assets created by the nonbank intermediaries a reduction in money supply would tend to be reinforced by a decrease in velocity. This would occur, it is argued, because the public may expect interest rates to rise. Defenders of classical monetary policy have pointed out, however, that if the only effect of the nonbank intermediaries were to increase the elasticity of demand for cash and thus require more monetary action to achieve a given result, it is not clear why this should substantially impede the use of monetary policy in the absence of any limitation on the extent of such action.

Another argument which has been made, but not developed in detail, is that the existence of intermediaries makes the results of a central bank action more difficult to predict and, therefore, the administration of monetary policy more difficult.

Such considerations have led some economists to consider the advisability of establishing some form of reserve requirement and other regulations to bring the nonbank intermediaries under the control of the monetary authority.

The Possible Decline of Commercial Banks

During a boom, open market sales of government securities or an increase in reserve requirements reduces the total assets of the commercial banking system. Since the nonbank intermediaries

[7] Given reserve requirements, the absolute size of the commercial banking system is determined by the amount of reserves that the Federal Reserve is making available. The absolute size of the nonbank intermediaries, on the other hand, varies with the willingness of the public to hold these financial assets. It is therefore possible for the total assets of the intermediaries to rise even in periods when the assets of the commercial banks are declining.

are not subject to reserve requirements, they are not directly affected by an increase in reserve requirements. Moreover, an open market sale may not reduce the assets of the nonbank intermediaries; tight money conditions and high interest rates may increase the relative profitability of the intermediaries and thereby induce the public to increase their holdings of financial assets, which the intermediaries create when they expand.

The ability of the nonbank intermediaries to expand is not limited — as is the case with the commercial banks — by legal reserve requirements which set a limit to the ratio of liabilities to cash resources. The tendency on the part of the public to shift from demand deposits to financial assets will be greater, assuming stable preferences, the greater the differential between the rate paid by the intermediaries and the rate paid on demand deposits. It follows therefore that the greater the relative profitability of the intermediaries the greater the decline in the commercial banking system. Consequently, if rising interest rates affect the relative profitability and thus induce such substitutions on the part of the public, the relative decline in commercial bank assets is inevitable so long as these conditions prevail.

If, under our present regulations, monetary tightening leads to a relative decline, and monetary ease to a relative growth, of the commercial banking system, the use of monetary policy changes, so it is argued, the relative importance of the various financial institutions. Such effects may be undesirable if our financial structure reflects not the public's preference for particular financial institutions but rather the consequences of flexible monetary policy.[8]

This argument assumes that the ability of the intermediaries to attract funds away from the commercial banks results from the fact that, when interest rates are high, the intermediaries pay better dividends to the public. However, the question has been raised as to why the spread between what they pay and what the banks pay (or charge) should increase in periods of rising interest rates. Is it because the yield on their assets increases more than that on the assets of the commercial banks? Is it supposed that nonbank intermediaries can and do use their surplus accounts to narrow the spread between what they earn and what they pay out for such competitive purposes? Or is it because the commercial banks are limited by law in what they can pay for demand deposits so that the best that they could offer is a zero service charge? In the first case the relative decline of the commercial banks reflects the public's preferences; in the latter two cases, it does not.

Some have also maintained that the present rules and regulations governing

[8] Some have argued that commercial banks possess a unique advantage in that their liabilities alone serve as means of payment and that monetary restrictions at most reduce this competitive advantage.

reserve requirements, taxes, and limitations on interest payments lead to a *secular* decline in commercial banking.

Thus, the following questions must be raised:

(1) Do we want a system of monetary controls that is cyclically neutral in its impact on our financial structure?

(2) Do we want a system of rules and regulations that is secularly neutral in its impact on our financial structure?

(3) What effect would such a cyclically and secularly neutral system have upon the effectiveness of monetary policy?

The Possible Impact on the Capital Market

Flexible monetary policy requires that the stock of money be varied countercyclically; in a boom the stock of money is to be restrained and in a recession it is to be stimulated, in both cases absolutely or relatively. Variations in the stock of money are brought about principally by open market operations which affect bank reserves and thus lead to a multiple expansion or contraction of demand deposits. The question has been raised as to whether this conception of monetary policy, which restricts itself to the earning assets and liabilities of commercial banks, takes sufficient account of the fact that changes in commercial bank assets may not affect the various sections of the capital market to the same extent. It is conceivable that the short-term markets could be affected sharply while the long-term markets might hardly feel the pinch.

Suppose inflation threatens and a reduction in aggregate demand is desired. Traditionally, the stock of money is restrained to whatever degree is necessary to achieve price stability without any *direct* attempt to reduce the stock of financial assets. Alternatively, reserve requirements for the nonbank intermediaries might be instituted, thus reducing, relatively or absolutely, the stock of financial assets to the degree necessary for price stability without any change in the stock of money.

Assume that the monetary authorities could choose between these actions and that the choice would not affect the total assets of banks and intermediaries combined but would substantially affect the distribution of assets between banks and other intermediaries. If both types of institutions are supplying the same markets so that the assets of the nonbank financial intermediaries are essentially similar to those of the commercial banks, it may not matter to the borrowers whether the commercial banking system or some other intermediary is contracting. On the other hand, if their respective portfolios differ, the two policies may have substantially different effects on the various classes of borrowers.

Consider a somewhat artificial example which illustrates this issue most clearly. Assume that commercial bank assets are all short-term loans and that the nonbank intermediaries hold only

increase rail revenues is to *reduce* rates over the ever widening range of commodities whose elasticity of rail transport demand is greater than unity. There is encouraging evidence that this approach is being employed more and more frequently by the railroads. Although retaliatory rate reductions by competitive media will serve to reduce the rail revenue accretions, this should not act as a deterrent if rails are truly the low-cost carriers.

Nothing has been said here about administrative ineptitude as a factor in the lengthening of the time lag between a request for an increase and the final ICC decision largely because the charge of bureaucratic inefficiency is easy to make but hard to document. Would any commission be deemed efficient if it acceded to or denied every request for rate increases instantaneously? The commission's productivity, defined as the number of decisions rendered per time period, would be enhanced but no government agency (outside of the Patent Office) would, or should, use this as an index of efficiency. There is, moreover, such a thing as "due process" and the right of all those affected to be heard, and this takes time. The conflict between equity and dispatch is a most vexing one but few would abandon equity, although it must be admitted that the ICC is often too scrupulous in letting those whose interests are at best remote have their day in court. Nevertheless the railroads are among the most flagrant intervenors in specific cases where their direct interests are virtually nonexistent and hence should be the last group to complain when others exercise their right to protest.

The problem of delay does not appear to be entirely due to bureaucratic lethargy and the commission does not deserve all the criticism heaped upon it on this score. When one considers the tremendous day-to-day work load of the ICC, the wonder is not that delays are so long but that they are so short.

The Promotion of Oligopoly in the Trucking Industry

The belief that the trucking industry is one of the last areas wherein pure competition appears to be technologically feasible currently possesses the stature of a piece of national folklore. As a result, the trend toward increasing concentration has been greeted with much dismay in many circles.[27] Clearly, if the folklore is true, then the increased concentration must be attributable to other than "naturally operative economic forces." And what group is more capable of performing this anticompetitive deed than the ICC? Hence the commission has been roundly blistered as the villain in the piece.

There are three specific complaints against the commission in this regard. It is alleged, first, that the commission's policy on new entrants is too restrictive; second, that the commission unduly prefers larger firms in its merger cases but restrains smaller firms from making acquisitions; and third, that the excessive number of route and commodity restrictions on existing certificated carriers creates an incentive to merge as

[27] Walter Adams and James B. Hendry, *Trucking Mergers, Concentration and Small Business: Analysis of Interstate Commerce Commission Policy, 1950-56*, prepared for Select Committee on Small Business, June, 1957.

Table 1. Marginal Cost per Ton-Mile for Varying Combinations of Weight and Distance, Motor Common Carriers

(Dollars per ton-mile)

Distance (miles)	Weight (pounds)									
	100	200	300	598	1,458	3,178	7,132	16,808	25,904	38,265
1,000......	.098	.072	.062	.052	.046	.042	.038	.032	.029	.026
900......	.105	.076	.065	.055	.048	.044	.039	.032	.029	.026
800......	.115	.082	.071	.058	.050	.046	.040	.033	.030	.027
700......	.127	.090	.077	.062	.053	.048	.042	.034	.030	.027
600......	.144	.101	.085	.068	.058	.052	.045	.035	.031	.028
500......	.168	.115	.097	.077	.064	.057	.049	.037	.032	.029
400......	.203	.138	.114	.089	.073	.064	.053	.040	.034	.030
300......	.261	.174	.143	.110	.090	.077	.063	.045	.037	.033
200......	.378	.247	.202	.151	.120	.101	.081	.054	.044	.038
100......	.730	.469	.376	.277	.214	.178	.138	.082	.064	.054
50......	1.428	.905	.719	.518	.395	.322	.240	.132	.100	.084

Source: *Cost of Transporting Freight by Class I Motor Common Carriers of General Commodities—Eastern-Central Territory—1956*, Interstate Commerce Commission, Bureau of Accounts, Cos Finding, and Valuation, Statement No. 4-57, October, 1957.

the only feasible way to overcome the restraints. Any one of these would suffice to promote oligopoly in regulated trucking but all three together give the appearance of a concerted and premeditated plan.

Before looking at these charges in detail, let us first examine the validity of the "conventional wisdom." Is the trucking industry naturally competitive and would it reach a position of stable equilibrium if let alone? The trucking industry has several well-known attributes which imply competitive features. Fixed costs are not significantly high and the equipment units and other real capital requirements are relatively small.[28] These features promote ease of entry and rapid adjustment of capacity to changed conditions. In addition, there is a closer relationship between the sales and output units (i.e truck-journey) than for any other forr of transport; this limits the magnituc of cost indivisibilities.

These conditions are essential bu not sufficient for the competitive ou come postulated by economic theor Indeed, there are other features of th trucking industry which are ant competitive in character.

Trucking is a decreasing-variable-co industry in the short-run. That is, wit a given plant and equipment, the co per ton-mile varies inversely with th traffic volume. Table 1 indicates fo specific shipment sizes the behavior c costs per ton-mile. If it is safe to cor clude that large volume is generall associated during any fiscal period wit large average load and long averag haul, then it is evident that a situatio of short-run decreasing costs exists i motor transport. Even if this is a untenable conclusion, increased rout utilization leads to decreasing costs p

[28] One of the reasons for these features is, of course, absence of ownership in the roadbed. In a real economic sense, this makes the comparison of actual rail and truck costs rather misleading.

vehicle-mile.[29] Thus, increased total mileage, independently of longer average hauls, lowers per unit costs. Similarly, increased tonnage handled per time period leads to decreasing terminal and line-haul costs per ton-mile. Loading costs rise less than proportionately to weight handled over the dock and, of course, are independent of distance. Line-haul costs are relatively insensitive to weight. Thus, increased tonnage, even if average load remains constant, involves lower per unit costs. Generally, however, increased tonnage permits heavier loadings per truckload either by enabling a heavier consolidation of LTL traffic or by affording an increase in back-haul traffic. It is not, then, unreasonable to correlate decreasing costs per ton-mile with increases in total tonnage handled or miles run per time period with a given plant and equipment. Of course, the cost decrease stops whenever traffic impinges upon available equipment.

Until this point is reached (i.e., some sort of optimum ratio of traffic to capacity), the fact of short-run increasing returns implies the possibility of cutthroat competition as firms struggle for more volume. Furthermore, the existence of joint costs leads to cutthroat competition and excessive instability where traffic that is back haul for one carrier is primary haul for another.[30] It is, of course, true that the short run in this industry is highly abbreviated since capital turnover is so rapid. This will have long-run consequences since susceptibility to frequent bouts of cutthroat competition is scarcely conducive to re-establishment of new firms after abolition of temporarily redundant capital. The long-run outcome which seems most probable is the establishment of a *modus vivendi* involving rate bureaus and other rationalizing (i.e. non-price competitive) restraints. In any event, these cost features imply that the competitive model is invalid for truck transport. Furthermore, the output of the various trucking firms is far from homogeneous and indeed there are substantial quality elements which differ widely from firm to firm. The sooner we reject the idea that transport firms supply homogeneous ton-miles of service, the sooner we shall be in a position to grapple with some fundamental problems in the economics of transport, but this is another story. Finally, trucking supply in each of the many geographic markets is not in a sufficiently large number of independent hands to preclude a recognized mutual interdependence and this is more of a natural than an artificial phenomenon. The existence of thousands of trucking firms over the entire United States does not lead to perfect competition *unless* there are such large numbers in *each* market. Since there are not, then, in each market the more normal situation appears to be one of oligopoly or, at best, monopolistic competition. A mere counting of numbers of firms nationally says nothing about local or regional market structures. There are, for example, many thousands of barbers but

[29] Merrill J. Roberts, "Some Aspects of Motor Carrier Costs: Firm Size, Efficiency, and Financial Health," *Land Economics*, Vol. 32 (August, 1956).

[30] Howard Nicholson, "Motor Carrier Costs and Minimum Rate Regulation," *Quarterly Journal of Economics*, Vol. 72, No. 1 (February, 1958).

they are not all competing with one another in the same market. A similar situation exists in the trucking industry.

The existence of these factors casts serious doubts upon the competitive nature of truck transport. One could just as legitimately presume the reverse modified only by the ease-of-entry characteristic. Thus, the folklore is, in fact, a myth. The trucking industry is not only not naturally competitive but, if let alone, would not exhibit tendencies toward stable equilibrium, as the history prior to the Motor Carrier Act amply demonstrates. The industry is undoubtedly *more* naturally competitive than rail or pipelines but this does not *ipso facto* imply the validity of the perfectly competitive model.

Thus, by reducing the degree of freedom of entry the ICC is simply facilitating an orderly trend toward concentration or alternatively maintaining the current degree of (admittedly precarious) stability. Without restriction of entry the purpose of the Motor Carrier Act would be thwarted. Whether the ICC is "too" restrictive or not, one cannot judge. If the ultimate situation in common carrier motor transportation is one of natural oligopoly in each market, then it may be desirable to speed up the process. No claims are made here for this teleology nor, if it is true, for the wisdom of accelerating the process. The important point is simply that the ICC is not necessarily flying in the face of naturally operative economic forces so that whether its policy on freedom of entry is too restrictive ca not reasonably be inferred from th fact of restriction itself.

Whether the commission unduly pre fers acquisitions by larger firms likewise debatable on the grounds men tioned above. Aside from this, there no conclusive evidence that this is de liberate, despite the rather substanti documentation of Adams and Hendr For example, it is altogether possib that the larger firms have been in th business longer, are more responsib and knowledgeable, and hence fit bett into the merger criteria as implied the national transportation policy. may be, also, that larger firms have th time, staff, and resources to prepare better case to present to the commissio Without premeditation these factors, true, could lead to the results of whic Adams and Hendry so bitterly com plain.

Of crucial economic importance wit respect to oligopolization is the beli that there are no economies of scale the trucking industry. Though this b lief is part of the competitive myth, has nonetheless received some substa tial statistical confirmation in rece studies.[31] The studies, however, do no show *dis*economies of scale. At wor they reveal that there are apparently n distinct economies. Roberts' study fin that the lowest per-unit costs result n so much from size as from avera

[31] Roberts, *loc. cit.*, and New Engla Governors' Committee on Public Transpo tation, *Motor Freight Transport for N England*, Report No. 5, October, 1956.

length of haul and route utilization. With respect to the former, this rather clearly implies that end-to-end mergers may be desirable and even parallel mergers might enhance utilization. Thus it is possible that size may have beneficial effects upon the variables Roberts found of decisive importance, though more analysis of this is required. If there are no diseconomies of scale, firm size is economically indeterminate since efficiency is the same for all levels of output. This in turn means that "the state of competition cannot be defined, since the number of sellers is not discoverable."[32] The competitive presumption cannot legitimately be held under such circumstances. Rising long-run costs do not limit firm size; therefore why presume competitive structure from the recent studies of scale economies? Indeed, as indicated above, there are good reasons for believing that noncompetitive structures are more likely. It should also be mentioned that in the trucking industry, size correlates *reasonably* well with service in terms of availability of equipment, regularity of service, and financial responsibility. On grounds of service, there is at least a prima facie case for larger firms and oligopolization, though this is hard to document fully. The point is that the studies of scale-economies have nothing to do with service, only costs; yet service features are probably as important in the trucking industry as costs and rates. We need to consider both service and cost when discussing the pros and cons of bigness.

Finally, we come to the question of route and commodity restrictions. There is little doubt that these are excessive and cause serious diseconomies and loss of business for regulated carriers. On these grounds they are to be condemned. Most of these were instituted originally to preserve competitors and those firms already established. Regulation implies certain protective features not only to the public but, in the trucking industry, to the regulated carriers themselves. Although it is true that the existence of such restrictions gives an incentive to merge various existing operating authorities, it is not clear whether removal of such restrictions would enhance or reduce the degree of concentration. One suspects that in some markets elimination of the restrictions would stimulate competition which *might* persist in the longer run if new entry is blocked but that in other markets the increased competition might lead to bankruptcy, mergers, or some form of close alliance. The outcome cannot be generalized but it cannot be doubted that the restrictions should be removed regardless of the ensuing adjustments.

Conclusion

The totality of the arguments presented here indicates that the current criticism of the economic intelligence of

[32] E. H. Chamberlin, "Proportionality, Divisibility and Economies of Scale," *Quarterly Journal of Economics*, Vol. 62, No. 1 (February, 1948), p. 229.

the ICC is either misplaced or is based upon somewhat tenuous propositions with respect to the problems of cost finding and the competitive nature of the trucking industry. The basic problem appears to reside not so much with commission policy as with the current state of our knowledge of the economics of transportation. If this is the key the present confusion and inconsiste cies in national transportation polic the group to be brought before the b is not the commission but transportatio economists who have not yet fully r solved the perplexing economic natu of intercarrier relationships.

The Recent Questioning of Monetary Policy*

David I. Fand
Committee for Economic Development
and
Ira O. Scott, Jr.
Graduate School of Business, Columbia University

'HE RECENT CONTROVERSY about mon-tary policy which has led, among other hings, to a recommendation for a Na-ional Monetary Commission seems to e concerned less with the over-all ef-ectiveness of monetary policy, if pur-ued vigorously, than with the possible ndesirable consequences of using it as principal weapon in an over-all stabil-zation program.[1] In the present paper some of the arguments currently made regarding the undesirability of using monetary policy as a principal weapon in our stabilization program will be reviewed.

Stabilization and Discrimination

Recent discussions of monetary policy have centered around the question, Does monetary policy "discriminate" against particular users of funds such as the homeowner, the small or new business, or the municipality and in favor of other users such as the large corporation or the established business?

It is impossible to define a stabilization policy that is neutral because any given policy must inevitably imply some arbitrary selection of goals. Since there is no norm, we cannot define favorable or unfavorable discrimination in an absolute sense. Discrimination is therefore essentially a relative concept; it can be given meaning only by comparing two situations. For example, when it is said that a given monetary policy is "unfair" or "discriminates" against, say, small business, the statement can only mean

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[1] On the recent controversy, and the ques-ion of the policy mix, see, for example, the ollowing references and the literature cited herein: J. G. Gurley and E. S. Shaw, 'Financial Aspects of Economic Develop-nent," *American Economic Review*, Vol. 5, No. 4 (September, 1955), pp. 515-38; bba P. Lerner, *Economics of Employment* New York: McGraw-Hill, 1951), pp. 258-3; Lawrence S. Ritter, "Income Velocity nd Anti-Inflationary Monetary Policy," *merican Economic Review*, Vol. 49, No. 1 March, 1959), pp. 120-29; Arthur Smithies, 'Uses of Selective Credit Controls," *United tates Monetary Policy* (New York: The merican Assembly, Columbia University,)ecember, 1958), pp. 73-89; and W. L. mith, "On the Effectiveness of Monetary 'olicy," *American Economic Review*, Vol. 6, No. 4 (September, 1956), pp. 588-606.

that the welfare losses of this particular monetary policy exceed those of other stabilization policies which are consistent with the given goals concerning price level, employment, income distribution, and growth.

We shall therefore define discrimination in this relative sense. An economic policy discriminates against all individuals or particular groups of individuals if there is another policy that can achieve the given national goals and which would leave the entire group or the particular group in a preferred position.[2] It is, in principle, possible to assess the change in welfare suffered by a particular group or by all members of society in substituting one stabilization policy for another.

Two consequences follow from this definition. First, since it is not possible to define a neutral stabilization policy, when critics object to a particular policy on the grounds of discrimination they must mean either that the welfare losses to all members of the society or to any one particular group are excessive, but only as compared with some alternative policy.[3] Second, since any stabilization policy involves gains and losses to various groups, public policy discussions would benefit if the effec of particular policies were both know and widely understood, and if the val framework implicit in choosing a polic were made explicit.

The recent concern with the discrim inatory aspects of monetary policy ha several sources. Many believe (1) tha a "tight money" policy has undesirab consequences and, more importantl (2) that better alternatives are avai able. In addition, some questio (1) whether monetary policy is th general over-all quantitative, and pr sumably nondiscriminatory, credit co trol that they had formerly suppose and (2) whether, if monetary polic partakes of the character of a selecti control, it compares favorably, in r gard to efficiency and equity, wit other kinds of general and selecti controls.[4]

The possibility of discrimination thr

[2] By extending this approach, we could also define discrimination against a particular economic activity. For example, we could say that a monetary or fiscal policy which resulted in higher average long-term rates of interest over the cycle discriminated against residential construction.

[3] Although a particular policy may involve discrimination in either of these two senses, the reader will note that most of the recent discussion summarized in the next four sections is concerned with the latter type of discrimination which involves welfare losses to particular groups.

[4] Some writers distinguish between qua titative, or general controls, on the one han and qualitative, or selective controls, on th other, and favor the general controls, part because they, unlike the selective contro do not involve an explicit discrimination. I our view, the identification of these tw issues is misleading. Whereas it may b easier to recognize the particular groups wh may gain or lose when a selective control instituted, it is not obvious that a selecti control always results in larger gains an losses than does a general control. W therefore feel that the issue of discrimin tion which deals with the magnitude of the gains and losses is not coextensive with th issue of general or selective controls whic deals with the determination of who th gainers and losers shall be. To bring th out more clearly, we define discriminatio in a relative sense. On this definition, ther fore, it makes sense to discuss the discrim nation effects even in comparing two gener controls.

may arise in choosing (1) the goal of stabilization; (2) the strategy of stabilization (should demand be restricted or supply stimulated?); (3) the various means of implementing the stabilization policy (the monetary-fiscal-debt management mix); (4) the techniques of monetary policy.

The Stabilization Objective

Is it preferable that product prices remain stable, fall as productivity increases, or rise by some specified amount each year? The particular goal chosen is likely to affect the relative position of the debtor vis-à-vis the creditor and the wage-earner vis-à-vis the capitalist and is also likely to affect, among other things, the amount of capital formation and the rate of growth of output.

Suppose stable prices are chosen as the goal and this selection affects workers adversely in the sense that they would be better off if rising prices had been chosen. The goal of stable prices has therefore been challenged on the grounds that it discriminates against particular groups.

Also involved in this discussion are the distributional aspects, which received much attention in the last century during the Greenback and Silver controversies, and which are still a prime issue today. In addition, the relationship between the stabilization goal and the rate of growth of output is being emphasized.

The Stabilization Strategy

Most discussions of stabilization concern policies that will increase or decrease aggregate demand. Thus "tight money" reduces aggregate demand whereas "easy money" raises aggregate demand. But why is attention directed to aggregate demand in policy discussions? Three reasons are usually given: (1) that it is easier to control aggregate demand than aggregate supply; (2) that the effects on demand resulting from a given policy change are easier to predict; and (3) that most over-all disturbances in prices, employment, and output result from changes in demand — aggregate supply does not behave erratically — and that the policy correctives should deal with the source of the disturbance.

Policies, however, may be designed to affect supply, either by preventing the various suppliers of factors of production from raising their returns per unit of input even though the market situation would permit or by calling forth a greater volume of productive effort at the same rates of return.

For example, it may be supposed that increased antitrust activity may so affect factor supplies and product pricing as to shift the supply schedule of output to the right; thus aggregate supply is increased. Such an increase might offset the inflationary pressure.

It is conceivable, therefore, that the stabilization goal could be achieved by policies which operate on aggregate supply. If such a response from the various factors of production can be effected, this would constitute an al-

ternative means of achieving stability. Because they believe that in most circumstances there is considerable scope for increasing aggregate supply, some critics hold that stabilization measures which operate primarily on aggregate demand "discriminate," because the goal may be achieved through appropriate changes in supply.

The Implementation of Stabilization Policy

Suppose that society chooses stable product prices. Also assume that, to achieve this particular goal, the stabilization authorities will attempt to affect aggregate demand rather than aggregate supply. There is quite a bit of leeway in our reliance on tax, expenditure, and debt management policy on the one hand and monetary policy on the other. For example, to achieve a given level of aggregate demand, the authorities can substitute, over a fairly wide range, tighter money for higher taxes.

If, given the stabilization goal, monetary policy can be substituted for fiscal or debt management policy, it follows that the particular policy adopted is arbitrary in the sense that there are alternatives consistent with the over-all goal. Moreover, these alternatives between monetary and fiscal or debt management policy and among monetary policies are not likely to have the same distribution effects; it is obvious that a given policy may have an especially adverse effect on a particular group of individuals. These two related fac (1) that the choice among alternati policies is arbitrary and (2) that th alternatives are likely to have differe incidence effects, give rise to a numb of "discrimination" arguments.

Borrowers and Nonborrowers

Not all spending units require e ternally borrowed funds to finance the expenditures; and, among those uni that do borrow, there is great variatio in the degree of their dependence o debt funds. Suppose that inflatio threatens, the money supply is reduce interest rates rise, and the availabili of credit is reduced. Potential hom owners or municipalities — units th depend mainly on debt funds — com plain that they are being "discrim nated" against because this particul way of combating inflation has a ve sharp impact upon the availability funds to finance these expenditure Also new and growing businesses pro erly buttress this complaint by pointi to old, established enterprises which re on internal finance and retained ear ings.

Elastic and Inelastic Demands

The money market is similar to oth markets in that a given change in pri will have different effects on units wi different elasticities of demand. Whe interest rates rise, borrowers with elast demands will reduce their loans propo tionately more than will borrowers wi inelastic demands. Critics of moneta

policy cite this particular fact — the differential impact on different borrowers — as an argument against monetary policy on the grounds of discrimination.[5]

This line of reasoning has an obvious appeal to those who are out of sympathy with the workings of the price system. The argument is consistent, however, with a basic acceptance of the logic of the price system. Once it is granted that the decision to use monetary policy is arbitrary, this elasticity argument may be viewed as an argument against the use of an arbitrary policy rather than against the workings of the price system.

Alleged Imperfections in the Capital Markets

The use of monetary policy may give rise to another kind of "discrimination." It is often asserted that banks and other financial intermediaries do not ration credit on the basis of price alone. It is commonplace to hear that, no matter how stringent the conditions in the money market, the large corporation can readily obtain the funds it wants. This feeling rests on the notion that a financial institution will be most reluctant to disappoint a large customer for fear of losing that business. Consequently, even though the small business is as credit-worthy as the large corporation in terms of net worth, income prospects, and debt-equity ratios, its line of credit may be cut off completely or in part during periods of monetary restraint.

Especially hard hit by this type of non-price rationing are new businesses. A financial institution is likely to feel some obligation to its old customers even if they are small businesses. There is, therefore, a real possibility that new enterprises may experience greater difficulty in obtaining bank and other financing in periods of tight money.

In periods of monetary restraint additional sources of "discrimination" against small business may exist because of another imperfection in the capital market. An open market issue of bonds or notes is not economically feasible unless it is above a certain dollar amount. Should a large corporation experience difficulty in getting funds from financial institutions, it always has the option of going to the market directly. A small business does not have this option because the overhead in placing a small issue would result in exorbitant rates. In a more perfect capital market, pooling arrangements would make it possible for small firms to get open market funds at rates more nearly like those paid by the large corporation, and the absence of such pooling may there-

[5] The reader will note that we are not considering "monopolistic discrimination" where borrowers with inelastic demands pay higher rates for the same commodity than do borrowers with elastic demands. To the extent that such discrimination exists, it reflects monopolistic, non-competitive pricing by the financial institutions; it is therefore essentially unrelated to the choice of the stabilization program. The type of discrimination we are considering exists regardless of the market structure, since it results from a decision to use monetary policy instead of, say, fiscal policy.

fore be regarded as an imperfection. This difference in the respective abilities of large and small enterprises to obtain open market funds may therefore lead to "discrimination" in conditions of monetary restraint.[6]

The Execution of Monetary Policy

Assume that we have agreed on stable prices as a goal, on the situations in which it is appropriate to operate by way of aggregate demand or aggregate supply, and on the relative roles of monetary, tax, expenditure, and debt management policy. A central bank can carry out its mandate in a number of ways: it can vary reserve requirements; it can buy or sell bills, bonds, or a combination of these; it can vary the discount rate; and finally it can resort to direct, or qualitative, controls. Some critics argue that each of the general, or quantitative, controls tends to have a sharp impact on particular classes of borrowers or expenditures. Indeed, to focus attention on this possibility of "discrimination," some of these critics favor the use of selective controls to force policy-makers to consider the gains and losses of particula groups explicitly.

A general increase in all interest rate will tend to discourage capital expendi tures all along the line. In the actua conduct of monetary affairs the mone tary authorities are not likely, or pe haps are unable, to vary all interes rates "equally." In some circumstance they will vary reserve requirements; i others, they will rely upon open marke operations. In some circumstances the may buy or sell short-term governmen securities; in others, they may deal i long-term government securities.

Suppose that inflation threatens. Th monetary authority has a choice amon a number of techniques. Although th choice may be of minor significance s far as the effectiveness of monetar policy is concerned, it may have a sub stantial effect on various categories c capital expenditures. If the monetar authority operates in longs and cause long rates to rise relative to short rate this may have a sharper impact on long term projects than if "equivalent" mon etary restraint were applied through op erating directly on short-term rates. Jus as the raising of all rates will redis tribute funds, relatively or absolutel from those with elastic demands t those with inelastic demands, the rai ing of a particular rate will similarl redistribute funds from one category c expenditures to another.

It should be noted that the discrim nation argument here rests not on th relative use of monetary and fiscal po

[6] Some critics who stress the small business argument have as their minimal program some special agencies, or devices, to provide credit for small and new enterprises, especially during periods of monetary restraint. They do not, however, spell out in detail what policies they would favor for the over-all stabilization problem. Some might favor a greater use of tax policy; others, selective controls; and there are, undoubtedly, some who are not concerned with stabilization — they favor what they call "a little" inflation.

icy but rather on the alternative ways in which the monetary authority can generate a desired degree of monetary restraint or ease.

The Institutional Impact of Monetary Policy

The issues raised thus far have abstracted from the institutions through which policy is carried out. The structure and function of financial institutions may add further discriminatory aspects to any given policy. Some of the recent criticism of monetary policy derives from such institutional aspects. Three related questions that have been raised about monetary policy will be considered.

(1) Does the relative growth of the nonbank intermediary make it more difficult for the monetary authorities to administer monetary policy?

(2) Does the use of monetary controls in the presence of nonbank intermediaries result in a relative decline of the commercial banking sector?

(3) If it does result in a relative decline of the commercial banking sector, does this "discriminate" against those who are dependent on bank borrowing?

The Effect of Nonbank Intermediaries

One of the outstanding structural developments in our financial system since the creation of the Federal Reserve System is said to be the decline in the proportion of total debt held by the commercial banking system. In addition to such new federal agencies as the Federal Land Banks, Federal Home Loan Banks, and government pension funds, we have seen a relative growth in the assets of savings and loan associations, life and property insurance companies, and mutual savings banks, and the creation of relatively new private institutions such as investment funds, finance companies, mortgage companies, and private pension funds.

Existing monetary controls apply directly only to the commercial banking sector of our financial system. The relative decline of the commercial banking system has reduced the proportion of the total of liquid assets on which the pressure of monetary controls is directly exerted. Some economists have therefore raised the questions (1) whether the response of the economy to a given Federal Reserve action has become weaker or subject to greater time lags and (2) whether the dangers of policy miscalculations have become much greater.

The liabilities of the nonbank financial intermediaries provide the public with financial assets which are substitutes for cash and which may therefore increase the elasticity of demand for money. In addition, the substitutability of these financial assets for cash may vary over the cycle so that the demand for money may fall during periods of monetary restraint.

Suppose a boom develops and the monetary authorities restrain the money supply. To achieve a given degree of monetary restraint a greater contrac-

tion of the commercial banking system is necessary than would otherwise be needed if the elasticity of demand for money is increased by the use of financial assets as cash substitutes. Moreover, a still greater contraction of the commercial banking system will be necessary if the profitability of the nonbank intermediaries permits them to expand their total assets. Finally, if the rise in interest rates in periods of monetary restraint creates incentives for the public increasingly to substitute these financial assets for cash, the increased demand for these financial assets can be satisfied almost indefinitely by the ability of the nonbank intermediaries to create these assets.[7] The relative or absolute contraction of the commercial banking system necessary to achieve a given amount of restraint rises *pari passu* with the decline in the demand for money.

This argument can be made even if it is assumed that, in the absence of nonbank intermediaries, central bank action would be partially offset by the incentive provided to the public in periods of high interest rates to economize on cash balances, creating a tendency for velocity to increase. Its proponents sometimes try to strengthen the argument by suggesting that in the absence of the financial assets created by the nonbank intermediaries a reduction in money supply would tend to be reinforced by a decrease in velocity. This would occur, it is argued, because the public may expect interest rates to rise. Defenders of classical monetary policy have pointed out, however, that if the only effect of the nonbank intermediaries were to increase the elasticity of demand for cash and thus require more monetary action to achieve a given result, it is not clear why this should substantially impede the use of monetary policy in the absence of any limitation on the extent of such action.

Another argument which has been made, but not developed in detail, is that the existence of intermediaries makes the results of a central bank action more difficult to predict and, therefore, the administration of monetary policy more difficult.

Such considerations have led some economists to consider the advisability of establishing some form of reserve requirement and other regulations to bring the nonbank intermediaries under the control of the monetary authority.

The Possible Decline of Commercial Banks

During a boom, open market sales of government securities or an increase in reserve requirements reduces the total assets of the commercial banking system. Since the nonbank intermediaries

[7] Given reserve requirements, the absolute size of the commercial banking system is determined by the amount of reserves that the Federal Reserve is making available. The absolute size of the nonbank intermediaries, on the other hand, varies with the willingness of the public to hold these financial assets. It is therefore possible for the total assets of the intermediaries to rise even in periods when the assets of the commercial banks are declining.

are not subject to reserve requirements, they are not directly affected by an increase in reserve requirements. Moreover, an open market sale may not reduce the assets of the nonbank intermediaries; tight money conditions and high interest rates may increase the relative profitability of the intermediaries and thereby induce the public to increase their holdings of financial assets, which the intermediaries create when they expand.

The ability of the nonbank intermediaries to expand is not limited — as is the case with the commercial banks — by legal reserve requirements which set a limit to the ratio of liabilities to cash resources. The tendency on the part of the public to shift from demand deposits to financial assets will be greater, assuming stable preferences, the greater the differential between the rate paid by the intermediaries and the rate paid on demand deposits. It follows therefore that the greater the relative profitability of the intermediaries the greater the decline in the commercial banking system. Consequently, if rising interest rates affect the relative profitability and thus induce such substitutions on the part of the public, the relative decline in commercial bank assets is inevitable so long as these conditions prevail.

If, under our present regulations, monetary tightening leads to a relative decline, and monetary ease to a relative growth, of the commercial banking system, the use of monetary policy changes, so it is argued, the relative importance of the various financial institutions. Such effects may be undesirable if our financial structure reflects not the public's preference for particular financial institutions but rather the consequences of flexible monetary policy.[8]

This argument assumes that the ability of the intermediaries to attract funds away from the commercial banks results from the fact that, when interest rates are high, the intermediaries pay better dividends to the public. However, the question has been raised as to why the spread between what they pay and what the banks pay (or charge) should increase in periods of rising interest rates. Is it because the yield on their assets increases more than that on the assets of the commercial banks? Is it supposed that nonbank intermediaries can and do use their surplus accounts to narrow the spread between what they earn and what they pay out for such competitive purposes? Or is it because the commercial banks are limited by law in what they can pay for demand deposits so that the best that they could offer is a zero service charge? In the first case the relative decline of the commercial banks reflects the public's preferences; in the latter two cases, it does not.

Some have also maintained that the present rules and regulations governing

[8] Some have argued that commercial banks possess a unique advantage in that their liabilities alone serve as means of payment and that monetary restrictions at most reduce this competitive advantage.

reserve requirements, taxes, and limitations on interest payments lead to a *secular* decline in commercial banking.

Thus, the following questions must be raised:

(1) Do we want a system of monetary controls that is cyclically neutral in its impact on our financial structure?

(2) Do we want a system of rules and regulations that is secularly neutral in its impact on our financial structure?

(3) What effect would such a cyclically and secularly neutral system have upon the effectiveness of monetary policy?

The Possible Impact on the Capital Market

Flexible monetary policy requires that the stock of money be varied countercyclically; in a boom the stock of money is to be restrained and in a recession it is to be stimulated, in both cases absolutely or relatively. Variations in the stock of money are brought about principally by open market operations which affect bank reserves and thus lead to a multiple expansion or contraction of demand deposits. The question has been raised as to whether this conception of monetary policy, which restricts itself to the earning assets and liabilities of commercial banks, takes sufficient account of the fact that changes in commercial bank assets may not affect the various sections of the capital market to the same extent. It is conceivable that the short-term markets could be affected sharply while the long-term markets might hardly feel the pinch.

Suppose inflation threatens and a reduction in aggregate demand is desired. Traditionally, the stock of money is restrained to whatever degree is necessary to achieve price stability without any *direct* attempt to reduce the stock of financial assets. Alternatively, reserve requirements for the nonbank intermediaries might be instituted, thus reducing, relatively or absolutely, the stock of financial assets to the degree necessary for price stability without any change in the stock of money.

Assume that the monetary authorities could choose between these actions and that the choice would not affect the total assets of banks and intermediaries combined but would substantially affect the distribution of assets between banks and other intermediaries. If both types of institutions are supplying the same markets so that the assets of the nonbank financial intermediaries are essentially similar to those of the commercial banks, it may not matter to the borrowers whether the commercial banking system or some other intermediary is contracting. On the other hand, if their respective portfolios differ, the two policies may have substantially different effects on the various classes of borrowers.

Consider a somewhat artificial example which illustrates this issue most clearly. Assume that commercial bank assets are all short-term loans and that the nonbank intermediaries hold only

:redit local earnings taxes payable to other jurisdictions in the same state. Only Pennsylvania has done so: municipalities except Philadelphia must give credit to the district of residence and to the City of Philadelphia; school districts may tax only residents. Ohio leaves crediting arrangements for local determination, and most of its municipalities credit the district of employment. Since Kentucky cities tax only income earned within the city, crediting arrangements are unnecessary. Missouri permits St. Louis to tax residents and nonresidents alike and the city itself makes no provisions for crediting arrangements, although considering its location and the low rate of the tax (½ percent), there is probably no need for them.

Collection Procedures and Problems

Collection of municipal income taxes is facilitated by dividing taxpayers into three groups: (1) businesses, (2) persons in private employment within the city limits, and (3) persons in private employment outside the city limits, or in public or special employment inside the city limits. To ascertain the tax liability of businesses, each potential taxpayer is required to file a statement similar to Schedule C of the Federal Income Tax Form 1040. This is adequate for professions and those operating small businesses entirely within the city. For larger firms, including corporations, operating outside the city, more complicated forms are used, or detailed riders are filed by the taxpayer. Persons in private employment within the city limits usually pay their taxes through withholding, that is, their employer deducts the tax from their paycheck and remits the tax to the city. Although most cities require all taxpayers to file forms listing their income and taxes withheld, the City of Philadelphia requires no return from taxpayers whose entire income is subject to withholding. Since the tax is on gross income, and no allowance is made for deductions or exemptions, nothing can happen during the year to change a worker's tax liability for income earned from private employment in Philadelphia, and hence filing a form is unnecessary.

The greatest part of the revenue receipts comes from withheld wages. In 1957, withheld taxes accounted for 81 percent of the total yield in Philadelphia, 88 percent in Pittsburgh, 85 percent in St. Louis, 78 percent in Louisville, 74 percent in Cincinnati, 76 percent in Toledo, and 70 percent in Columbus. Costs of collection of this part of the tax are extremely low. Employees' returns are made directly to the city (1) by those residents whose employers do not deduct the tax because they are outside the city, or are a governmental unit, or are otherwise exempt from mandatory withholding provisions of the local ordinance, and (2) by nonresidents of the city employed within the city by governmental units or non-withholding employers.

Among the seven largest cities using this tax, employees' returns ranged from 8.3 percent of the total tax take in Philadelphia to less than 3 percent in St. Louis.

It is very difficult to collect the tax from those individuals whose employers do not withhold it. Since employers having no place of business inside the city's jurisdiction cannot be compelled to withhold wages of city residents working for them, such residents must compute and pay their own tax liabilities. Some out-of-town employers, with the consent of their employees, do withhold the tax and remit to the city of residence.

Collection from nonresident employees of non-withholding employers is the most difficult. This group consists primarily of federal and state employees. The federal government and the states of Pennsylvania, Ohio, Kentucky, and Missouri do furnish information regarding the addresses and compensation of their employees who earn their incomes in cities imposing such earned income taxes. The responsibility for the payment of the tax by federal employees has been well established, although contested in the courts on several occasions.[7] The yield from such taxpayers
is sometimes not very much grea
than the collection cost, and collecti
is often attempted primarily to assu
equity among taxpayers rather than
obtain the revenues that might
produced.

Municipal income tax collections
the seven cities over 250,000 imposi
such taxes are shown for the years 19
and 1957 in Table 1. To help ma
comparisons among the jurisdictio
the collection figures have been divid
by the estimated city population as
January 1, 1957, and by the tax rate
show per capita collections per 1 p
cent of rate. The Ohio cities with ta
applying to corporate as well as to u
incorporated business show the great
returns from this tax. St. Louis' coll
tion rate is slightly below the Oh
cities, partly because its economic ba
may be smaller, and partly because
then allows federal income taxes as
business deduction. Philadelphia a
Pittsburgh cannot tax incorporated bu
inesses and their collection rates refl
this inability. Pittsburgh's collectio
are much lower than Philadelphi
since it must forgo the tax on nonre
dents whose municipality of residen
imposes a similar tax, whereas Phi
delphia is not subject to such a restr
tion. Although Louisville does tax c
porations, it collects less (per capita
1 percent of tax rate) than Philad
phia. This difference may be attribu
primarily to variations in the level
income. It may therefore be conclu
that a 1 percent earnings tax in

[7] Jefferson B. Fordham. "Local Income Taxation," *University of Pennsylvania Law Review,* Vol. 101 (June, 1953), pp. 1178-88. The City of Philadelphia was upheld by the United States Supreme Court on January 12, 1959, in the most recent challenge of its authority to collect from nonresident federal employees: *United States ex rel. George E. Thompson v. William Lennox,* 157 F. Supp. 93, 258 F. 2d 320, and U. S. Supreme Court Reports 3 L ed 2d 303.

Table 1. Comparative Municipal Income Tax Collections
Cities over 250,000 Population

City	Tax rate (Percent)		Collections (Thousands of dollars)		Estimated population, January 1, 1957 (Thousands)	Per capita collection per 1 percent of rate	
	1956	1957	1956	1957		1956	1957
'hiladelphia	1¼	1½	53,127	64,970	2,180.3	$19.50	$19.87
t. Louis	½	½	9,100	9,696	877.2	20.74	22.10
'ittsburgh	½	½	5,016	5,676	677.8	14.80	16.74
incinnati	1	1	12,482	15,123	546.4	22.84	27.68
olumbus	½	1	6,450	9,716	431.3	29.90	22.53
ouisville[a]	1¼	1¼	9,142	10,262	419.0	18.06	19.59
'oledo	1	1	8,601	8,635	333.3	25.81	25.91

[a] Tax rate was 1 percent during January and February, 1956.

Sources: Bureau of the Census, *Compendium of City Government Finances in 1956* and *Com-endium of City Government Finances in 1957* (Washington: Government Printing Office, 1957 nd 1958), Table 14; and "Survey of Buying Power," *Sales Management*, Vol. 78, No. 10 May 10, 1957).

arge city in the United States will yield t least $20 per capita in revenue, and nay even produce over $25 per capita vith strong enforcement and minimum xemption from the tax base.

Impact of Earned Income Taxes

As a means of comparing the burden f municipal earnings taxes among ommunities imposing such taxes, and eighboring jurisdictions, the state and ocal income taxes of a married man vith two children was computed for ve levels of income in selected cities nd states. The cities of Philadelphia, ouisville, Cincinnati, and St. Louis vere chosen because each has a differ-nt tax rate and each is in a different tate. The taxes computed for Cincin-ati would be equally applicable in any nunicipality in Ohio or Pennsylvania nposing a 1 percent tax rate. In any irisdiction in either of these two states here a lower tax rate is imposed, taxes would be in proportion. The states selected are those contiguous to Pennsylvania, Ohio, and Kentucky, which impose income taxes.

Table 2 shows in descending order, the combined local and state income tax liability in 1958 of a married man with two children whose adjusted gross income, no part of which comes from investments or capital gains, is, respectively, $3,000, $5,000, $10,000, $15,000, and $25,000. The amounts shown for the states of Kentucky and Missouri are for income tax liability of persons living outside the cities imposing earnings taxes. In Louisville and St. Louis, the city earnings tax and the state net income tax have been combined. In Philadelphia, Cincinnati, and the states of Delaware, Indiana, Maryland, New York, and Virginia, only one income tax applies throughout the jurisdiction.

Municipal earnings taxes are computed by multiplying the adjusted gross

Table 2. Comparative Personal State and Local Earned Income Tax Liability in 1958 of a Married Man with Two Children[a] Selected Cities and States[b]

(In descending order of tax liability)

Earned income of $3,000		Earned income of $5,000		Earned income of $10,000	
Philadelphia 1½%	$45.00	Ky., Louisville 1¼%	$104.54	Ky., Louisville 1¼%	$338.
Ky., Louisville 1¼%	38.45	Philadelphia 1½%	75.00	Delaware	236.
Indiana	30.00	Indiana	60.00	Kentucky[c]	211.
Cincinnati[d] 1%	30.00	Cincinnati[d] 1%	50.00	Virginia	200.
Mo., St. Louis ½%	15.00	Virginia	42.00	New York State	195.
Virginia	6.00	Kentucky[c]	41.54	Maryland	174.
Delaware	3.61	Maryland	39.00	Philadelphia 1½%	150.
Kentucky[c]	.80	Mo., St. Louis ½%	33.87	Indiana	135.
Maryland	....	New York State	26.00	Mo., St. Louis ½%	131.
Missouri[e]	....	Delaware	21.60	Cincinnati[d] 1%	100.
New York State	....	Missouri[e]	8.82	Missouri[e]	81.

Earned income of $15,000		Earned income of $25,000	
Ky., Louisville 1¼%	$605.79	Delaware	$1,299.00
Delaware	579.00	Ky., Louisville 1¼%	1,114.40
New York State	464.00	New York State	1,094.00
Virginia	425.00	Virginia	875.00
Kentucky[c]	415.32	Kentucky[c]	795.38
Maryland	309.00	Maryland	579.00
Mo., St. Louis ½%	260.87	Mo., St. Louis ½%	557.00
Philadelphia 1½%	225.00	Missouri[e]	430.00
Indiana	210.00	Philadelphia 1½%	375.00
Missouri[e]	185.17	Indiana	360.00
Cincinnati[d] 1%	150.00	Cincinnati[d] 1%	250.00

[a] Net income taxes were computed by allowing personal deductions of 10 percent of a justed gross income, exclusive of federal, state, and local income taxes.

[b] Major cities, and states contiguous to Pennsylvania, Ohio, and Kentucky imposi income taxes. Percentages after city indicate the rate of earnings tax.

[c] Outside of Louisville, Lexington, Newport, Paducah, and Covington.

[d] Cincinnati or any city in Ohio or Pennsylvania imposing a 1 percent earnings tax.

[e] Except in St. Louis.

income by the applicable tax rate. Indiana's gross income tax is computed by deducting $1,000 from adjusted gross income and multiplying the balance by 1½ percent. Net income taxes in the other six states shown were computed by allowing personal deductions of 10 percent of adjusted gross income, exclusive of federal, state, and local income taxes, and then deducting the exemptions or credits authorized for a married taxpayer with two children. Kentucky and Missouri allow federal income taxes as a deduction from i come in computing state income t liability, and the federal governme allows state and local income taxes deductions from taxable income; these two states different tax liability shown for the state outside of cities im posing earnings taxes and inside a ci imposing an earnings tax. Where loc earnings taxes apply, the state incom tax liability will be greater, because t federal income tax, an allowable d duction, is smaller. There are no sta

Table 3. Comparative Corporation State and Local Income Tax Bills for Four Levels of Income[a] in Selected Locations[b]

(In descending order of 1958 tax liability)

City and state	Rate (Percent)	Adjusted gross income			
		$5,000	$25,000	$100,000	$500,000
Philadelphia[c]	...	...	.....	.....	......
Pennsylvania	6	$300	$1,500	$6,000	$30,000
New York State	5½	275	1,375	5,500	27,500
Delaware	5	250	1,250	5,000	25,000
Maryland	5	250	1,250	5,000	25,000
Virginia	5	250	1,250	5,000	25,000
Kentucky—Louisville	Combined	240	1,205	4,663	23,793
Kentucky	5 and 7	178	893	3,413	17,543
Louisville	1¼	62	312	1,250	6,250
Kentucky[d]	5 and 7	178	888	3,367	17,315
Missouri—St. Louis	Combined	95	477	1,586	7,488
Missouri	2	70	352	1,086	4,988
St. Louis	½	25	125	500	2,500
Missouri[e]	2	70	352	1,080	4,962
Cincinnati[f]	1	50	250	1,000	5,000

[a] Taxable income is net profit before deduction of federal, state, or local income taxes. All income allocated to taxing jurisdiction.

[b] Cities and states shown in Table 2 except Indiana which does not have a comparable tax.

[c] In any city in Pennsylvania, corporations pay only the state tax and not the local earnings tax.

[d] Outside of Louisville, Lexington, Newport, Paducah, and Covington.

[e] Except in St. Louis.

[f] Cincinnati or any city in Ohio imposing a 1 percent earnings tax. At the $500,000 level of income, the Cincinnati tax is higher than the Missouri tax.

personal income taxes in Ohio and Pennsylvania. At the lowest level of income shown, $3,000, there would be no net income tax liability in Maryland, Missouri, and New York State for a married man with two children.

Table 2 serves to delineate the effects of the flat-rate taxes vis-à-vis the progressive net income taxes. At the $3,000 level of adjusted gross income, the Philadelphian has the highest tax liability because of the flat 1½ percent rate. However, at the $25,000 level he pays less than similarly circumstanced individuals in any of the surrounding net income tax states. In Louisville, where the taxpayer is faced with a fairly high earnings tax of 1¼ percent and a fairly high progressive state income tax, his combined burden makes him highest on the list at the $5,000, $10,000, and $15,000 income levels. At the $25,000 level his combined taxes would be exceeded by those payable in Delaware with its high progressive rates. It may be noted that in St. Louis, where both the local earnings tax rate and the state net income tax rates are low, the combined burden of the taxpayer is always in the middle.

Similar comparisons of corporations burdened by income taxation appear in Table 3. The tax liability of a corporation in ten of the jurisdictions shown

in the previous table has been computed for four levels of taxable income. Taxable income is defined as net profits before the deduction of federal, state, or local income taxes. For purposes of illustration, all income was allocated to the taxing jurisdiction. Business taxes were not computed for Indiana since its gross income tax as applied to corporations is not on the net profit base used here. The jurisdictions have been arranged in descending order of tax liability.

The greatest tax liability at any level of income shown is in Philadelphia, where the 6 percent Pennsylvania tax rate applies. In Philadelphia, or any city in Pennsylvania, corporations pay only the state corporation income tax and not the local earnings tax. New York State with its 5½ percent rate, and Delaware, Maryland, and Virginia, with their 5 percent rates, all impose heavier burdens on corporations than exist in any earnings tax city outside of Pennsylvania. In Kentucky and Missouri the state corporation income tax is higher in cities imposing an earnings tax than in the rest of the state, because under their laws, income taxes paid to the federal government may be deducted from income. The federal government allows state and local taxes as a deduction; hence municipal earnings tax payments will decrease federal corporation income taxes which will increase state income taxes in states allowing such a deduction. It may be noted in Table 3 that the state income tax in Louisville and St. Louis is higher inside the city than in the rest of the state, particularly at the upper levels of income.

The combined state and local income tax liability in Louisville is lower than in Delaware, Maryland, and Virginia at all levels of income. Although Kentucky's rates are 5 percent and 7 percent on net income, its allowance of federal income taxes as a deductible item reduces its burden. Similarly, the combined state and local income tax liability in St. Louis is lower than that prevailing in Kentucky outside of the earnings tax cities. Missouri's corporation income tax, at 2 percent, with federal income taxes deductible, is so low that at the $500,000 level of net profits it results in a lower tax liability than do 1 percent municipal earnings taxes such as that imposed by the city of Cincinnati.

The Future of the Municipal Earnings Tax

Is it likely that more cities will adopt the municipal earnings tax as a means of solving their fiscal problems? Is there room in the tax structure of other states for such a tax, or will it be confined to the states now permitting it? The tax exists in Ohio and Pennsylvania because those states do not have net in-

come taxes. In those two states it has been adopted by large cities and small boroughs. In Kentucky and Missouri, where the municipal earnings tax is levied in addition to state-imposed individual income taxes and corporation income taxes, it is only a big-city phenomenon.

The great variety of municipal taxing units in Pennsylvania — there are over 750 income tax jurisdictions now — may eventually lead to pressure for the state to step in and take over the tax. The corporation income tax is state-wide and a personal income tax existing in most parts of the state could be supplanted by state-wide administration. Pennsylvania could follow Maryland's practice of imposing a flat rate tax (3 percent) on net earned income, a small part of which (.68 percent on the tax base), is distributed to the counties on the basis of the taxpayer's residence. Such an arrangement would obviate the need for duplication of administrative facilities and interjurisdictional arrangements and reciprocity agreements. A similar fate may befall the local earnings taxes in Ohio. It is less likely, however, since there are fewer jurisdictions using it there, since the state has neither an individual nor a corporation income tax, and since interjurisdictional arrangements are settled primarily in favor of the city of earnings, where collection through withholding is possible.

Its greatest prospects are for use by big cities in states having both individual and corporation income taxes, as in Missouri and Kentucky.[8] Cities like Baltimore and Atlanta would find this tax a productive source of revenue. Even New York City could use such a tax, although the present administration seems to prefer the legalization and taxing of off-track betting or a 4 percent consumer sales tax to a city income tax. At present, New York City has the power to levy a payroll tax of ¼ percent on employees and ¼ percent on their employers. Such a tax, though similar in many respects to the earned income tax, has no counterpart in state and local taxation anywhere in the United States.

An earned income tax also lends itself to adoption by counties surrounding or adjacent to big cities, when the tax is already in use in the central city. In Ohio and Pennsylvania, the small boroughs surrounding the large cities with earnings taxes have been foremost in adopting the tax. If New York City had such a tax, counties such as Westchester, Rockland, Nassau, and Suffolk might find it wise to follow suit and tap the reverse-commuters for some reve-

[8] Gadsden, Alabama, imposes an occupational license levy similar to the taxes in the five Kentucky cities listed, except that business net profits are not subject to the tax. Municipal income taxes effective January 1, 1959, have been adopted by the cities of Ashland and Hopkinsville, Kentucky.

nue. Although the tax has remained geographically in the East, it offers prospects for the Midwest and West. Cities such as Portland, Oregon; Minneapolis, Minnesota; and Milwaukee, Wisconsin which are in states which impose individual and corporation income taxes, but to which sales taxes are anathema, might some day consider such a tax as a solution to a pressing fiscal problem.

Books Reviewed

The Development of the Soviet Budgetary System. By R. W. Davies (New York: Cambridge University Press, 1958. Pp. xxi, 373. $8.50)

This book, a revised version of a doctoral dissertation presented at the University of Birmingham in 1954, has both the virtues and the shortcomings of a dissertation.

So far as its stated topic is concerned, the book performs the commendable task of bringing together a large body of information presented in an orderly and skillful fashion. (Incidentally the period covered systematically in the book extends only up to 1941, a fact mentioned on the dust jacket but not included in the title, which thus conveys the somewhat erroneous impression that the study carries its inquiry up to the present.) In broad outline, the book surveys in turn the evolution of the Soviet budget from the decline of the money economy and the resort to a "budget in kind" in the 1918-20 setting to the restoration of a budgetary system in the early New Economic Policy period between 1921 and 1924, financial planning and budgeting in the period of the preparation of the industrialization drive from 1925 to 1929, the breakdown of the old budgetary system, the characteristics of the newly emerging budget policies between 1930 and 1934, and the modification of these policies during the period 1935-41. After this methodical historical survey, a short final chapter attempts to focus on the budgets of the war and postwar years, as well as on the analysis and evaluation of the past trends, current limitations, and possible changes in the budgetary system.

To furnish the backdrop to the budgetary evolution, the book deals often and at length with a variety of related problems: the decision to industrialize, the role of accumulation, the growth of planning, the role of finance in promoting efficient investment, and so on. Professor Baykov, who writes the Foreword to the book, welcomes all these more or less related excursions since he is convinced that they add new dimensions to the book. This reviewer feels that many of these digressions might well have been left out. Unfortunately it has become customary for anyone dealing with any particular aspect of the Soviet economy to present over and over again the *modus operandi* of the Soviet economy as a whole, and that not only for the present but also for the whole historical period starting in 1917. The weakness of the book lies perhaps in its sharply limited attempts toward

broader generalizations concerning such problems as the choice among different forms of taxation or the possible use of other tools for solving certain fiscal problems. The only prospective fiscal changes which impress Dr. Davies are, first, the possible transfer of functions from the Union to republic and local budgets and, second, other possible administrative changes at the enterprise level in the general process of "decentralization" and reorganization taking place under Khrushchev.

The book presents, as already stated, a vast amount of information for a most decisive period of the Soviet economic development. It sheds abundant light on many aspects of Soviet fiscal policies and budgetary concepts. As it stands it complements Professor Holzman's *Soviet Taxation* (Cambridge: Harvard University Press, 1955), in which the historical analysis of the period considered is rather cursory. The book will gain by being read in conjunction with this standard study, which furnishes precisely the framework needed for an analytical approach to the problems considered.

Nicolas Spulber

Indiana University

Diary of a Strike. By Bernard Karsh (Urbana: University of Illinois Press, 1958. Pp. xiii, 180. $3.50)

Professor Karsh has managed to do two exceedingly rare things: he has written the account of a strike that tells an absorbing and human story about people in conflict; he has also, as a social scientist, distilled the vital theoretical essences of the situation.

The locale of the story is "Saylor, a city on the upper Great Lakes." (The names of people and places have been disguised but they are real enough.) The chief actors are (1) the Saylor Company, owned by the Miller family ("representing the last of the local industrial dynasties") and specifically Tom Miller, the chief mover in the Saylor Company; (2) the 200 workers of the Miller plant, which produces "an expensive line of soft goods"; (3) the union (in the person particularly of Phil Draper, the chief organizer of the union in the state), and assorted organizers, other union members, and the Saylor Trades and Labor Council; and (4) public officials including a mayor, a sheriff, and the police.

The situation is a strike directed by the union against the company and the organizing attempts which led to the strike. If the story has a protagonist, it is Draper. Karsh faithfully records the sentiments and the actions of all the participants and sketches perceptively the economic and social climate of the community. In the course of this we get to know all the characters intimately: Draper, the chief organizer; Helen, the organizer sent in to deal with the situation on the spot; Tom Miller, the president of the company; the activists; the "fence-sitters"; the "scabs" among the workers.

Perhaps the most evocative writing is in the account of the picket line. The way Karsh describes and records the picket line one can almost hear and see the dust on the roads, the picket line singing, the violence, and the spirit. This reviewer knows of no one in recent years who has done a better job o

capturing the drama and the human forces at work.

Karsh's people are not dehydrated social statistics but recognizable human beings in trouble and in conflict. Here lies the main clue to the high quality of Karsh's performance. The reader feels that he can test Karsh's generalizations against his facts.

Karsh's treatment has another important meaning for on-the-spot social research. He not only talked to the people and got their responses in a structured study, he also saw what was going on. He avoids, therefore, one of the major defects in current survey research: excessive reliance on what people say, and abdication of the role of the scientist to analyze what people do; we know that what people say, and what they do about what they say, are not always the same.

If I understand the theoretical implications which Karsh draws, they seem to turn on the role of conflict in a union-management situation. "Conflict," Karsh says, "is an indigenous component of the worker-employer (and especially the union-management) relationship." Karsh revisited Saylor four years after the conflict and he seems to suggest that a new collaborative relationship has developed.

If I am not inferring more than is proper from the facts in Saylor Revisited, the collaboration could have come about in this situation only after conflict; and consequently an open trial of strength may not necessarily be destructive over the long pull because it provides a basis for durable collaboration. It is possible that Karsh does not make enough of this. This is a minor cavil for a genuinely important book.

JACK BARBASH

University of Wisconsin

The Labor Force Under Changing Income and Employment. By Clarence D. Long (Princeton: Princeton University Press for the National Bureau of Economic Research, 1958. Pp. xxiv, 440. $10.00)

The American Labor Force: Its Growth and Changing Composition. By Gertrude Bancroft. A volume in the Census Monograph Series for the Social Science Research Council and the Bureau of the Census, U. S. Department of Commerce (New York: John Wiley, 1958. Pp. xiv, 256. $7.50)

It is rare for two major works in a field to be published almost simultaneously. It is even rarer for such works to complement each other. Such, however, is the fortunate circumstance surrounding these two volumes. Professor Long's work represents the results of research begun nearly twenty years ago. Much of it was supported by financial grants from various research foundations and institutions. Miss Bancroft's volume is one in the census monograph series sponsored by the Social Science Research Council in cooperation with the United States Department of Commerce, Bureau of the Census. Both are outstanding contributions.

Professor Long's work is primarily analytical. It is concerned with the complex forces operating in the short run and in the long run to increase the

labor force participation of some components of the population and decrease that of others. His analysis falls roughly into three main categories.

First, he brings a prodigious amount of empirical research to bear on the various factors affecting labor force rates at a given time. Second, he uses elaborate statistical techniques to measure labor force relationships over time. Third, he considers how little we really know about our manpower resources and what we need to know in order to approach adequate understanding. In the last respect this volume should serve as a base of operations for future research in this field, much as did Paul Douglas' classic works in 1934 and 1937.

For the reader who has neither time nor inclination for the entire work, Professor Long provides an excellent summary in Chapter 1. Chapter 2 is a brief review of concepts, materials, and methods. Then follow ten chapters of analysis.

Attention is devoted first to labor force behavior of women at a given time as related to differences in income. Among cities, states, and selected nations from 1900 to 1940, Long found, in general, a negative relationship. The higher the general level of income, the lower the labor force rates. But negative correlation in the United States had disappeared by 1950. New institutional forces, not clearly understood, now seem to be at work. Within given markets there still appears to be some negative relationship between the work of the wife and the income of the husband but this relationship appears to be weakening with time. As important as income today, in some cases more im-portant, is level of education as a facto in the work of women.

Long found that over time, wive work rates are positively related to ris ing real family income. The rate c increase in participation appears t have greatly accelerated in recent dec ades. How do we explain this majo dynamic force in labor force growth The factors associated are numerous our ability to determine causal relation ships limited.

The rising rate of household mecha nization, which has reduced require ments per household task, is often cite as releasing wives for work. Actuall this may not be so. The time saved ma have gone into rising standards of chil and household care. In any case, Lon says there is little evidence one way o the other on this important factor Strong statistical support is found fo the positive effects of (1) the decline in the number of persons for whom th average housewife has responsibility (2) the rise in the level of education (3) the expansion of occupational op portunities accompanying the rise o tertiary occupations, and (4) th shorter workweek.

The declining participation of male 14 to 24 years of age in this and othe countries is associated with rising level of education, but whether this is caus or effect is hard to say. The declinin participation of older men present some baffling analytical problems. Lon found that greater longevity, extensio of pensions, rising real income, greate physical inadequacy as a result of th faster pace in industry, and the declin in self-employment occupations hav

not been principal factors in the decline although they are often cited as such. What then is the principal explanation? At least some of the decline is apparently associated with the greater disadvantage of older men vis-à-vis younger women, because the higher education of the latter gives them a competitive advantage. Some men may be leaving the labor force voluntarily; others are being squeezed out.

Does the labor force increase in times of severe depression because secondary workers, i.e., housewives, come into the market? Long reiterates his previous criticism of the "additional worker" theory, but his explanation is not entirely satisfactory. Part of the problem lies in the limitations of enumerative census techniques.

Labor force behavior in World War II is described for the United States, Great Britain, Canada, and Germany. The greater relative flexibility of the labor force in the United States and the relatively poor job of womanpower mobilization in Germany are noteworthy parts of this discussion.

What of total labor force change over the long run? Long points out the United States has experienced a high degree of over-all stability but a high degree of instability in labor force components. This instability arises from the fact that the rising work rates of some groups in our population have just about offset the declining work rates of other groups. The influences are many. They include (1) unionization, (2) distribution of income, (3) patterns of credit, (4) leisure time activities, (5) community attitudes, (6) conditions and locations of work, (7) intensity of effort required, and (8) "fringe" benefits. With only partial information on these factors we cannot arrive at any "tight" explanation. They challenge the ingenuity of scholars in this field. At this point Long combines the approach of a modest investigator with literary flair when he says (p. 33):

> Economic forces may exert their influence mainly through social or institutional channels, which wind in much the same way as do those of a great river to sea. While the general course is there, its direction or rapidity of movement at any one time or place depends on the terrain, in a manner hidden from a lone, pedestrian explorer, able to follow its meanderings for only a comparatively short part of the way.

As in any major work of this kind, many readers will find areas of disagreement. Professor Long's heavy emphasis on the stability of the labor force can be very misleading. It is like saying that if one engineer moves his engine forward at 50 miles an hour and one moves his backward at the same rate of speed, their average forward speed is zero and hence that you have stability.

There is continual reference to the fact that household burdens of women have declined because of the decline in the birth rate and in the average family size. This is very odd reasoning. The decline ceased about twenty years ago. Professor Long ignores the fact that the labor force participation of women with pre-school-age children, although still relatively low, has risen more rapidly in recent years than that of women with older children. Are these women having more children because they can work more easily? Or do they work

more frequently in order to help support the increase in average family size?

This volume might well have been improved by two devices. First, it would have been helpful to have a summary at the end of each chapter. Second, there are many pages of detailed and tedious statistics (and their analysis) which end with the conclusion that "no significant relationship was found." Such material might have been merely summarized in the text and the detailed discussion relegated to the appendix.

Professor Long is impressed with the fact that with the workweek shrinking, more women are undertaking tasks outside the home. What about the reverse side of the coin? What about the role of men, who, spending less time in the labor market, are assuming more tasks at or "on the way" home?

Despite shortcomings, this work is a contribution of high order. It will serve as an analytical landmark for many years to come.

Miss Bancroft's volume is primarily descriptive although brief analytical comment runs through the account. The task of describing cross-section, short- and long-run labor force characteristics is accomplished entirely with data of the Bureau of the Census.

Major emphasis is on recent changes (1940-50) and current labor force characteristics. Chapter 1 presents a detailed description of the population and labor force in one year, 1956, using the monthly reports of the Current Population Survey. This is probably the best cross-section description available in the literature. Chapter 2 attempts to bring together most of the comparable data on labor force trends from the decennial censuses from 18[illegible] to 1950. Miss Bancroft's long expe[illegible] ence with the Bureau of the Cens[illegible] makes this chapter particularly autho[illegible] tative. The change in labor force stat[illegible] of married women in the last ha[illegible] century constitutes one of the maj[illegible] social revolutions of our time. How[illegible] ever, as Miss Bancroft points out, o[illegible] understanding of this major change [illegible] still very limited.

A third chapter is devoted specifical[illegible] to changes between 1940 and 1950. Th[illegible] treatment is exhaustive and will ser[illegible] as an important source of referenc[illegible] Chapter 4 is devoted to the growin[illegible] importance of the part-time labor forc[illegible] This is the most detailed discussion no[illegible] available in the literature. The rise [illegible] the part-time labor force is closely a[illegible] sociated with the rising participation [illegible] married women. The fifth chapter co[illegible] tinues the analysis of women workers [illegible] terms of those who can be classed [illegible] secondary workers. The discussion cen[illegible] ters around their contributions to tot[illegible] family income and their occupations.

In a final chapter Miss Bancroft pr[illegible] sents four projections of the labor forc[illegible] to 1975, based on four different sets [illegible] assumptions. Most provocative is th[illegible] one based on the extrapolation of tren[illegible] from 1950 to 1955. The author poin[illegible] out, as have others, that a new era [illegible] manpower will begin in this countr[illegible] about 1965 when the rising birth ra[illegible] after 1935 and especially after 1945 w[illegible] result in an annual increase of abo[illegible] one million new workers between th[illegible] ages of 20 and 35 in contrast to rece[illegible] increases of only a little over half th[illegible] much. Her bibliography is brief b[illegible] excellent. Technical notes in the a[illegible]

endix will prove a solace to students arassed by the discontinuities of census ata.

Two minor criticisms may be made. 'he discussion in some sections is deiled — unnecessarily so — to the point f weariness. Additional details could ave been placed in the appendix or ft for the reader to observe in the 96 ables of the text. Secondly, although ne nonwhite population is about 10 ercent of the total it occupies 50 perent of the discussion in some chapters, nus distracting from continuity. The onwhite data might well have been eveloped in a separate chapter.

Although these two works are comlementary in a general sense, the auhors, as might be expected, have some reas of disagreement. Professor Long nakes much of the negative relationhip of wages and wives' work rates, at east until very recently. Miss Bancroft loubts that the relationship was ever ery strong. She rightly emphasizes the on-wage factors now determining abor force participation trends. Proessor Long dismisses recent increases n public and private pensions as a ninor factor in the declining participaion of older men. Miss Bancroft beieves they are important.

Both of these authorities agree that he decline in labor force participation f older men and the decline in family esponsibilities of women over 35 raise ome of the most acute social and psyhological questions of our time. Our nswers thus far are unsatisfactory.

Finally, both authors agree that the tudy of the nation's manpower reources has matured in the last ten years or two reasons. First, prior to 1950 economists were certain about the existence of a simple relationship between wages and labor supply. It was negative. Women worked when family income was low and left the market as it rose. Today the simple explanation, if it ever were true, no longer holds. Second, as a result of the development and expansion of the monthly sample census of the Bureau of the Census, we now have a large and growing storehouse of information not previously available. The analysis of this wealth of data has just begun. It promises rich rewards in understanding our most important resource — the human being.

John B. Parrish

University of Illinois

Organizations. By James G. March and Herbert A. Simon (New York: John Wiley, 1958. Pp. xi, 262. $6.50)

This book will prove to be an important milestone in the evolving theory of organizations. It provides a highly concentrated, organized survey of the research and writing on the theory of organizations with primary emphasis upon the studies of human behavior in organizations. The major contribution of the authors lies in the collection and restatement of the existing knowledge concerning organizations. However, new ideas will be found by the careful reader throughout the book. It is not a textbook but it should be required reading for every serious student of organizations.

To many readers the title of the book may be misleading and this may be accentuated by the expectation that

this book will present a developed theory of organizations. The authors state at the outset that "This book is about the theory of formal organizations." They further limit their treatment of the subject through their concept of organization theory. They state,

> Propositions about organizations are statements about human behavior, and imbedded in every such proposition, explicitly or implicitly, is a set of assumptions as to what properties of human beings have to be taken into account to explain their behavior in organizations.

This statement combined with some others in the text appear to limit their consideration of organization theory to the study of the behavior of rational human beings in formal organizations operating in a benign world.

The expositional device used by the authors to provide a logical organization for the book will lead to an unnecessary amount of criticism on the part of students of management. They start out by examining a few propositions in "classical" organization theory, which includes both scientific management and administrative management theory. These propositions are viewed as treating the employees as "*passive instruments* capable of performing work and accepting directions, but not initiating action or exerting influence in any significant way." Viewed from this standpoint the classical theory is regarded as having five basic limitations:

> (1) The motivational assumptions underlying the theories are incomplete and consequently inaccurate. (2) There is little appreciation of the role of intraorganizational conflict of interests in defining limits of organizational behavior. (3) The constraints placed on the human being by limitations as a complex informati processing system are given little conside tion. (4) Little attention is given to role of cognition in task identification a classification as well as in decision. (5) T phenomenon of program elaboration ceives little emphasis.

These five limitations are then us as the topics of the last five chapters the book. Unfortunately, this may le many students of management to r to the defense of the classical sch which they feel is under attack rath than to look at the positive contrib tions made in this book to the furth development of the theory which w initiated by the members of that sch of thought. The authors could ha avoided much of this criticism by little less dogmatism on this subject.

Those interested in understandi business organizations will find ma disappointments in this book. The a thors have limited their discussion most exclusively to the employee a other participant groups such as sto holders, and customers are largely i nored. The limitations of the analy imposed by this narrow frame of ref ence is especially evident in the chapt on conflict. However, an author m always place some limitations upon t scope of coverage. If the student business organizations is inclined to disappointed in the deficiencies of t book, he should also be grateful th such wide vistas of research in this ar of interest have been opened up for consideration. The authors can be sured that their objective of stimulati study and research in organizations a

credit local earnings taxes payable to other jurisdictions in the same state. Only Pennsylvania has done so: municipalities except Philadelphia must give credit to the district of residence and to the City of Philadelphia; school districts may tax only residents. Ohio leaves crediting arrangements for local determination, and most of its municipalities credit the district of employment. Since Kentucky cities tax only income earned within the city, crediting arrangements are unnecessary. Missouri permits St. Louis to tax residents and nonresidents alike and the city itself makes no provisions for crediting arrangements, although considering its location and the low rate of the tax (½ percent), there is probably no need for them.

Collection Procedures and Problems

Collection of municipal income taxes is facilitated by dividing taxpayers into three groups: (1) businesses, (2) persons in private employment within the city limits, and (3) persons in private employment outside the city limits, or in public or special employment inside the city limits. To ascertain the tax liability of businesses, each potential taxpayer is required to file a statement similar to Schedule C of the Federal Income Tax Form 1040. This is adequate for professions and those operating small businesses entirely within the city. For larger firms, including corporations, operating outside the city, more complicated forms are used, or detailed riders are filed by the taxpayer. Persons in private employment within the city limits usually pay their taxes through withholding, that is, their employer deducts the tax from their paycheck and remits the tax to the city. Although most cities require all taxpayers to file forms listing their income and taxes withheld, the City of Philadelphia requires no return from taxpayers whose entire income is subject to withholding. Since the tax is on gross income, and no allowance is made for deductions or exemptions, nothing can happen during the year to change a worker's tax liability for income earned from private employment in Philadelphia, and hence filing a form is unnecessary.

The greatest part of the revenue receipts comes from withheld wages. In 1957, withheld taxes accounted for 81 percent of the total yield in Philadelphia, 88 percent in Pittsburgh, 85 percent in St. Louis, 78 percent in Louisville, 74 percent in Cincinnati, 76 percent in Toledo, and 70 percent in Columbus. Costs of collection of this part of the tax are extremely low. Employees' returns are made directly to the city (1) by those residents whose employers do not deduct the tax because they are outside the city, or are a governmental unit, or are otherwise exempt from mandatory withholding provisions of the local ordinance, and (2) by nonresidents of the city employed within the city by governmental units or non-withholding employers.

Among the seven largest cities using this tax, employees' returns ranged from 8.3 percent of the total tax take in Philadelphia to less than 3 percent in St. Louis.

It is very difficult to collect the tax from those individuals whose employers do not withhold it. Since employers having no place of business inside the city's jurisdiction cannot be compelled to withhold wages of city residents working for them, such residents must compute and pay their own tax liabilities. Some out-of-town employers, with the consent of their employees, do withhold the tax and remit to the city of residence.

Collection from nonresident employees of non-withholding employers is the most difficult. This group consists primarily of federal and state employees. The federal government and the states of Pennsylvania, Ohio, Kentucky, and Missouri do furnish information regarding the addresses and compensation of their employees who earn their incomes in cities imposing such earned income taxes. The responsibility for the payment of the tax by federal employees has been well established, although contested in the courts on several occasions.[7] The yield from such taxpayers is sometimes not very much grea than the collection cost, and collect is often attempted primarily to ass equity among taxpayers rather than obtain the revenues that might produced.

Municipal income tax collections the seven cities over 250,000 impos such taxes are shown for the years 19 and 1957 in Table 1. To help ma comparisons among the jurisdictio the collection figures have been divid by the estimated city population as January 1, 1957, and by the tax rate show per capita collections per 1 p cent of rate. The Ohio cities with ta applying to corporate as well as to u incorporated business show the great returns from this tax. St. Louis' coll tion rate is slightly below the O cities, partly because its economic b may be smaller, and partly because then allows federal income taxes as business deduction. Philadelphia a Pittsburgh cannot tax incorporated b inesses and their collection rates refl this inability. Pittsburgh's collecti are much lower than Philadelph since it must forgo the tax on nonr dents whose municipality of reside imposes a similar tax, whereas Phi delphia is not subject to such a restr tion. Although Louisville does tax c porations, it collects less (per capita 1 percent of tax rate) than Philad phia. This difference may be attribu primarily to variations in the level income. It may therefore be conclud that a 1 percent earnings tax in a

[7] Jefferson B. Fordham. "Local Income Taxation," *University of Pennsylvania Law Review,* Vol. 101 (June, 1953), pp. 1178-88. The City of Philadelphia was upheld by the United States Supreme Court on January 12, 1959, in the most recent challenge of its authority to collect from nonresident federal employees: *United States ex rel. George E. Thompson v. William Lennox,* 157 F. Supp. 93, 258 F. 2d 320, and U. S. Supreme Court Reports 3 L ed 2d 303.

Table 1. Comparative Municipal Income Tax Collections Cities over 250,000 Population

City	Tax rate (Percent)		Collections (Thousands of dollars)		Estimated population, January 1, 1957 (Thousands)	Per capita collection per 1 percent of rate	
	1956	1957	1956	1957		1956	1957
Philadelphia	1¼	1½	53,127	64,970	2,180.3	$19.50	$19.87
St. Louis	½	½	9,100	9,696	877.2	20.74	22.10
Pittsburgh	½	½	5,016	5,676	677.8	14.80	16.74
Cincinnati	1	1	12,482	15,123	546.4	22.84	27.68
Columbus	½	1	6,450	9,716	431.3	29.90	22.53
Louisville[a]	1¼	1¼	9,142	10,262	419.0	18.06	19.59
Toledo	1	1	8,601	8,635	333.3	25.81	25.91

[a] Tax rate was 1 percent during January and February, 1956.

Sources: Bureau of the Census, *Compendium of City Government Finances in 1956* and *Compendium of City Government Finances in 1957* (Washington: Government Printing Office, 1957 and 1958), Table 14; and "Survey of Buying Power," *Sales Management*, Vol. 78, No. 10 (May 10, 1957).

large city in the United States will yield at least $20 per capita in revenue, and may even produce over $25 per capita with strong enforcement and minimum exemption from the tax base.

Impact of Earned Income Taxes

As a means of comparing the burden of municipal earnings taxes among communities imposing such taxes, and neighboring jurisdictions, the state and local income taxes of a married man with two children was computed for five levels of income in selected cities and states. The cities of Philadelphia, Louisville, Cincinnati, and St. Louis were chosen because each has a different tax rate and each is in a different state. The taxes computed for Cincinnati would be equally applicable in any municipality in Ohio or Pennsylvania imposing a 1 percent tax rate. In any jurisdiction in either of these two states where a lower tax rate is imposed, taxes would be in proportion. The states selected are those contiguous to Pennsylvania, Ohio, and Kentucky, which impose income taxes.

Table 2 shows in descending order, the combined local and state income tax liability in 1958 of a married man with two children whose adjusted gross income, no part of which comes from investments or capital gains, is, respectively, $3,000, $5,000, $10,000, $15,000, and $25,000. The amounts shown for the states of Kentucky and Missouri are for income tax liability of persons living outside the cities imposing earnings taxes. In Louisville and St. Louis, the city earnings tax and the state net income tax have been combined. In Philadelphia, Cincinnati, and the states of Delaware, Indiana, Maryland, New York, and Virginia, only one income tax applies throughout the jurisdiction.

Municipal earnings taxes are computed by multiplying the adjusted gross

Table 2. Comparative Personal State and Local Earned Income Tax Liability in 1958 of a Married Man with Two Children[a] Selected Cities and States[b]

(In descending order of tax liability)

Earned income of $3,000		Earned income of $5,000		Earned income of $10,0	
Philadelphia 1½%. . .	$45.00	Ky., Louisville 1¼%.	$104.54	Ky., Louisville 1¼%.	$33
Ky., Louisville 1¼%. .	38.45	Philadelphia 1½%. . .	75.00	Delaware.	23
Indiana.	30.00	Indiana.	60.00	Kentucky[c].	21
Cincinnati[d] 1%.	30.00	Cincinnati[d] 1%.	50.00	Virginia.	20
Mo., St. Louis ½%. . .	15.00	Virginia.	42.00	New York State.	19
Virginia.	6.00	Kentucky[c].	41.54	Maryland.	17
Delaware.	3.61	Maryland.	39.00	Philadelphia 1½%. . .	15
Kentucky[c].	.80	Mo., St. Louis ½%. .	33.87	Indiana.	13
Maryland.	. . . .	New York State.	26.00	Mo., St. Louis ½%. .	13
Missouri[e].	. . . .	Delaware.	21.60	Cincinnati[d] 1%.	10
New York State.	. . . .	Missouri[e].	8.82	Missouri[e].	8

Earned income of $15,000		Earned income of $25,000	
Ky., Louisville 1¼%.	$605.79	Delaware.	$1,299.00
Delaware.	579.00	Ky., Louisville 1¼%. . . .	1,114.40
New York State.	464.00	New York State.	1,094.00
Virginia.	425.00	Virginia.	875.00
Kentucky[c].	415.32	Kentucky[c].	795.38
Maryland.	309.00	Maryland.	579.00
Mo., St. Louis ½%.	260.87	Mo., St. Louis ½%.	557.00
Philadelphia 1½%.	225.00	Missouri[e].	430.00
Indiana.	210.00	Philadelphia 1½%.	375.00
Missouri[e].	185.17	Indiana.	360.00
Cincinnati[d] 1%.	150.00	Cincinnati[d] 1%.	250.00

[a] Net income taxes were computed by allowing personal deductions of 10 percent of justed gross income, exclusive of federal, state, and local income taxes.
[b] Major cities, and states contiguous to Pennsylvania, Ohio, and Kentucky impo income taxes. Percentages after city indicate the rate of earnings tax.
[c] Outside of Louisville, Lexington, Newport, Paducah, and Covington.
[d] Cincinnati or any city in Ohio or Pennsylvania imposing a 1 percent earnings tax.
[e] Except in St. Louis.

income by the applicable tax rate. Indiana's gross income tax is computed by deducting $1,000 from adjusted gross income and multiplying the balance by 1½ percent. Net income taxes in the other six states shown were computed by allowing personal deductions of 10 percent of adjusted gross income, exclusive of federal, state, and local income taxes, and then deducting the exemptions or credits authorized for a married taxpayer with two children. Kentucky and Missouri allow federal

income taxes as a deduction from come in computing state income liability, and the federal governm allows state and local income taxes deductions from taxable income; these two states different tax liabilit shown for the state outside of cities posing earnings taxes and inside a imposing an earnings tax. Where l earnings taxes apply, the state inc tax liability will be greater, because federal income tax, an allowable duction, is smaller. There are no s

Table 3. Comparative Corporation State and Local Income Tax Bills for Four Levels of Income[a] in Selected Locations[b]
(In descending order of 1958 tax liability)

City and state	Rate (Percent)	Adjusted gross income			
		$5,000	$25,000	$100,000	$500,000
Philadelphia[c]	...	...	.....	.....	......
Pennsylvania	6	$300	$1,500	$6,000	$30,000
New York State	5½	275	1,375	5,500	27,500
Delaware	5	250	1,250	5,000	25,000
Maryland	5	250	1,250	5,000	25,000
Virginia	5	250	1,250	5,000	25,000
Kentucky—Louisville	Combined	240	1,205	4,663	23,793
Kentucky	5 and 7	178	893	3,413	17,543
Louisville	1¼	62	312	1,250	6,250
Kentucky[d]	5 and 7	178	888	3,367	17,315
Missouri—St. Louis	Combined	95	477	1,586	7,488
Missouri	2	70	352	1,086	4,988
St. Louis	½	25	125	500	2,500
Missouri[e]	2	70	352	1,080	4,962
Cincinnati[f]	1	50	250	1,000	5,000

[a] Taxable income is net profit before deduction of federal, state, or local income taxes. All income allocated to taxing jurisdiction.
[b] Cities and states shown in Table 2 except Indiana which does not have a comparable tax.
[c] In any city in Pennsylvania, corporations pay only the state tax and not the local earnings tax.
[d] Outside of Louisville, Lexington, Newport, Paducah, and Covington.
[e] Except in St. Louis.
[f] Cincinnati or any city in Ohio imposing a 1 percent earnings tax. At the $500,000 level of income, the Cincinnati tax is higher than the Missouri tax.

personal income taxes in Ohio and Pennsylvania. At the lowest level of income shown, $3,000, there would be no net income tax liability in Maryland, Missouri, and New York State for a married man with two children.

Table 2 serves to delineate the effects of the flat-rate taxes vis-à-vis the progressive net income taxes. At the $3,000 level of adjusted gross income, the Philadelphian has the highest tax liability because of the flat 1½ percent rate. However, at the $25,000 level he pays less than similarly circumstanced individuals in any of the surrounding net income tax states. In Louisville, where the taxpayer is faced with a fairly high earnings tax of 1¼ percent and a fairly high progressive state income tax, his combined burden makes him highest on the list at the $5,000, $10,000, and $15,000 income levels. At the $25,000 level his combined taxes would be exceeded by those payable in Delaware with its high progressive rates. It may be noted that in St. Louis, where both the local earnings tax rate and the state net income tax rates are low, the combined burden of the taxpayer is always in the middle.

Similar comparisons of corporations burdened by income taxation appear in Table 3. The tax liability of a corporation in ten of the jurisdictions shown

in the previous table has been computed for four levels of taxable income. Taxable income is defined as net profits before the deduction of federal, state, or local income taxes. For purposes of illustration, all income was allocated to the taxing jurisdiction. Business taxes were not computed for Indiana since its gross income tax as applied to corporations is not on the net profit base used here. The jurisdictions have been arranged in descending order of tax liability.

The greatest tax liability at any level of income shown is in Philadelphia, where the 6 percent Pennsylvania tax rate applies. In Philadelphia, or any city in Pennsylvania, corporations pay only the state corporation income tax and not the local earnings tax. New York State with its 5½ percent rate, and Delaware, Maryland, and Virginia, with their 5 percent rates, all impose heavier burdens on corporations than exist in any earnings tax city outside of Pennsylvania. In Kentucky and Missouri the state corporation income tax is higher in cities imposing an earnings tax than in the rest of the state, because under their laws, income taxes paid to the federal government may be deducted from income. The federal government allows state and local taxes as a deduction; hence municipal earnings tax payments will decrease federal corporation income taxes which will increase state income taxes in states a lowing such a deduction. It may noted in Table 3 that the state incon tax in Louisville and St. Louis is high inside the city than in the rest of t state, particularly at the upper lev of income.

The combined state and local incon tax liability in Louisville is lower tha in Delaware, Maryland, and Virgin at all levels of income. Although Ke tucky's rates are 5 percent and 7 pe cent on net income, its allowance federal income taxes as a deductib item reduces its burden. Similarly, t combined state and local income t liability in St. Louis is lower than th prevailing in Kentucky outside of t earnings tax cities. Missouri's corpor tion income tax, at 2 percent, with fe eral income taxes deductible, is so lo that at the $500,000 level of net profi it results in a lower tax liability than o 1 percent municipal earnings tax such as that imposed by the city Cincinnati.

The Future of the Municipal Earnings Tax

Is it likely that more cities will ado the municipal earnings tax as a mea of solving their fiscal problems? Is the room in the tax structure of other stat for such a tax, or will it be confined the states now permitting it? Th tax exists in Ohio and Pennsylvania b cause those states do not have net i

come taxes. In those two states it has been adopted by large cities and small boroughs. In Kentucky and Missouri, where the municipal earnings tax is levied in addition to state-imposed individual income taxes and corporation income taxes, it is only a big-city phenomenon.

The great variety of municipal taxing units in Pennsylvania — there are over 750 income tax jurisdictions now — may eventually lead to pressure for the state to step in and take over the tax. The corporation income tax is state-wide and a personal income tax existing in most parts of the state could be supplanted by state-wide administration. Pennsylvania could follow Maryland's practice of imposing a flat rate tax (3 percent) on net earned income, a small part of which (.68 percent on the tax base), is distributed to the counties on the basis of the taxpayer's residence. Such an arrangement would obviate the need for duplication of administrative facilities and interjurisdictional arrangements and reciprocity agreements. A similar fate may befall the local earnings taxes in Ohio. It is less likely, however, since there are fewer jurisdictions using it there, since the state has neither an individual nor a corporation income tax, and since interjurisdictional arrangements are settled primarily in favor of the city of earnings, where collection through withholding is possible.

Its greatest prospects are for use by big cities in states having both individual and corporation income taxes, as in Missouri and Kentucky.[8] Cities like Baltimore and Atlanta would find this tax a productive source of revenue. Even New York City could use such a tax, although the present administration seems to prefer the legalization and taxing of off-track betting or a 4 percent consumer sales tax to a city income tax. At present, New York City has the power to levy a payroll tax of ¼ percent on employees and ¼ percent on their employers. Such a tax, though similar in many respects to the earned income tax, has no counterpart in state and local taxation anywhere in the United States.

An earned income tax also lends itself to adoption by counties surrounding or adjacent to big cities, when the tax is already in use in the central city. In Ohio and Pennsylvania, the small boroughs surrounding the large cities with earnings taxes have been foremost in adopting the tax. If New York City had such a tax, counties such as Westchester, Rockland, Nassau, and Suffolk might find it wise to follow suit and tap the reverse-commuters for some reve-

[8] Gadsden, Alabama, imposes an occupational license levy similar to the taxes in the five Kentucky cities listed, except that business net profits are not subject to the tax. Municipal income taxes effective January 1, 1959, have been adopted by the cities of Ashland and Hopkinsville, Kentucky.

nue. Although the tax has remained geographically in the East, it offers prospects for the Midwest and West. Cities such as Portland, Oregon; Minneapolis, Minnesota; and Milwaukee, Wisconsin which are in states which impose individual and corporation inco taxes, but to which sales taxes a anathema, might some day consic such a tax as a solution to a pressi fiscal problem.

Books Reviewed

The Development of the Soviet Budgetary System. By R. W. Davies (New York: Cambridge University Press, 1958. Pp. xxi, 373. $8.50)

This book, a revised version of a doctoral dissertation presented at the University of Birmingham in 1954, has both the virtues and the shortcomings of a dissertation.

So far as its stated topic is concerned, the book performs the commendable task of bringing together a large body of information presented in an orderly and skillful fashion. (Incidentally the period covered systematically in the book extends only up to 1941, a fact mentioned on the dust jacket but not included in the title, which thus conveys the somewhat erroneous impression that the study carries its inquiry up to the present.) In broad outline, the book surveys in turn the evolution of the Soviet budget from the decline of the money economy and the resort to a "budget in kind" in the 1918-20 setting to the restoration of a budgetary system in the early New Economic Policy period between 1921 and 1924, financial planning and budgeting in the period of the preparation of the industrialization drive from 1925 to 1929, the breakdown of the old budgetary system, the characteristics of the newly emerging budget policies between 1930 and 1934, and the modification of these policies during the period 1935-41. After this methodical historical survey, a short final chapter attempts to focus on the budgets of the war and postwar years, as well as on the analysis and evaluation of the past trends, current limitations, and possible changes in the budgetary system.

To furnish the backdrop to the budgetary evolution, the book deals often and at length with a variety of related problems: the decision to industrialize, the role of accumulation, the growth of planning, the role of finance in promoting efficient investment, and so on. Professor Baykov, who writes the Foreword to the book, welcomes all these more or less related excursions since he is convinced that they add new dimensions to the book. This reviewer feels that many of these digressions might well have been left out. Unfortunately it has become customary for anyone dealing with any particular aspect of the Soviet economy to present over and over again the *modus operandi* of the Soviet economy as a whole, and that not only for the present but also for the whole historical period starting in 1917. The weakness of the book lies perhaps in its sharply limited attempts toward

broader generalizations concerning such problems as the choice among different forms of taxation or the possible use of other tools for solving certain fiscal problems. The only prospective fiscal changes which impress Dr. Davies are, first, the possible transfer of functions from the Union to republic and local budgets and, second, other possible administrative changes at the enterprise level in the general process of "decentralization" and reorganization taking place under Khrushchev.

The book presents, as already stated, a vast amount of information for a most decisive period of the Soviet economic development. It sheds abundant light on many aspects of Soviet fiscal policies and budgetary concepts. As it stands it complements Professor Holzman's *Soviet Taxation* (Cambridge: Harvard University Press, 1955), in which the historical analysis of the period considered is rather cursory. The book will gain by being read in conjunction with this standard study, which furnishes precisely the framework needed for an analytical approach to the problems considered.

NICOLAS SPULBER

Indiana University

Diary of a Strike. By Bernard Karsh (Urbana: University of Illinois Press, 1958. Pp. xiii, 180. $3.50)

Professor Karsh has managed to do two exceedingly rare things: he has written the account of a strike that tells an absorbing and human story about people in conflict; he has also, as a social scientist, distilled the vital theoretical essences of the situation.

The locale of the story is "Saylor, city on the upper Great Lakes." (T names of people and places have be disguised but they are real enough The chief actors are (1) the Say Company, owned by the Miller fam ("representing the last of the local i dustrial dynasties") and specifica Tom Miller, the chief mover in t Saylor Company; (2) the 200 work of the Miller plant, which produces " expensive line of soft goods"; (3) t union (in the person particularly Phil Draper, the chief organizer of t union in the state), and assorted orga izers, other union members, and t Saylor Trades and Labor Council; a (4) public officials including a may a sheriff, and the police.

The situation is a strike directed the union against the company and t organizing attempts which led to t strike. If the story has a protagonist, is Draper. Karsh faithfully records t sentiments and the actions of all t participants and sketches perceptive the economic and social climate of t community. In the course of this get to know all the characters in mately: Draper, the chief organize Helen, the organizer sent in to deal wi the situation on the spot; Tom Mill the president of the company; the a tivists; the "fence-sitters"; the "scab among the workers.

Perhaps the most evocative writing in the account of the picket line. T way Karsh describes and records t picket line one can almost hear and the dust on the roads, the picket l singing, the violence, and the spi This reviewer knows of no one in cent years who has done a better job

capturing the drama and the human forces at work.

Karsh's people are not dehydrated social statistics but recognizable human beings in trouble and in conflict. Here lies the main clue to the high quality of Karsh's performance. The reader feels that he can test Karsh's generalizations against his facts.

Karsh's treatment has another important meaning for on-the-spot social research. He not only talked to the people and got their responses in a structured study, he also saw what was going on. He avoids, therefore, one of the major defects in current survey research: excessive reliance on what people say, and abdication of the role of the scientist to analyze what people do; we know that what people say, and what they do about what they say, are not always the same.

If I understand the theoretical implications which Karsh draws, they seem to turn on the role of conflict in a union-management situation. "Conflict," Karsh says, "is an indigenous component of the worker-employer (and especially the union-management) relationship." Karsh revisited Saylor four years after the conflict and he seems to suggest that a new collaborative relationship has developed.

If I am not inferring more than is proper from the facts in Saylor Revisited, the collaboration could have come about in this situation only after conflict; and consequently an open trial of strength may not necessarily be destructive over the long pull because it provides a basis for durable collaboration. It is possible that Karsh does not make enough of this. This is a minor cavil for a genuinely important book.

JACK BARBASH

University of Wisconsin

The Labor Force Under Changing Income and Employment. By Clarence D. Long (Princeton: Princeton University Press for the National Bureau of Economic Research, 1958. Pp. xxiv, 440. $10.00)

The American Labor Force: Its Growth and Changing Composition. By Gertrude Bancroft. A volume in the Census Monograph Series for the Social Science Research Council and the Bureau of the Census, U. S. Department of Commerce (New York: John Wiley, 1958. Pp. xiv, 256. $7.50)

It is rare for two major works in a field to be published almost simultaneously. It is even rarer for such works to complement each other. Such, however, is the fortunate circumstance surrounding these two volumes. Professor Long's work represents the results of research begun nearly twenty years ago. Much of it was supported by financial grants from various research foundations and institutions. Miss Bancroft's volume is one in the census monograph series sponsored by the Social Science Research Council in cooperation with the United States Department of Commerce, Bureau of the Census. Both are outstanding contributions.

Professor Long's work is primarily analytical. It is concerned with the complex forces operating in the short run and in the long run to increase the

labor force participation of some components of the population and decrease that of others. His analysis falls roughly into three main categories.

First, he brings a prodigious amount of empirical research to bear on the various factors affecting labor force rates at a given time. Second, he uses elaborate statistical techniques to measure labor force relationships over time. Third, he considers how little we really know about our manpower resources and what we need to know in order to approach adequate understanding. In the last respect this volume should serve as a base of operations for future research in this field, much as did Paul Douglas' classic works in 1934 and 1937.

For the reader who has neither time nor inclination for the entire work, Professor Long provides an excellent summary in Chapter 1. Chapter 2 is a brief review of concepts, materials, and methods. Then follow ten chapters of analysis.

Attention is devoted first to labor force behavior of women at a given time as related to differences in income. Among cities, states, and selected nations from 1900 to 1940, Long found, in general, a negative relationship. The higher the general level of income, the lower the labor force rates. But negative correlation in the United States had disappeared by 1950. New institutional forces, not clearly understood, now seem to be at work. Within given markets there still appears to be some negative relationship between the work of the wife and the income of the husband but this relationship appears to be weakening with time. As important as income today, in some cases more i
portant, is level of education as a fact
in the work of women.

Long found that over time, wiv
work rates are positively related to r
ing real family income. The rate
increase in participation appears
have greatly accelerated in recent de
ades. How do we explain this maj
dynamic force in labor force growt
The factors associated are numero
our ability to determine causal relatio
ships limited.

The rising rate of household mech
nization, which has reduced requi
ments per household task, is often cit
as releasing wives for work. Actua
this may not be so. The time saved m
have gone into rising standards of chi
and household care. In any case, Lo
says there is little evidence one way
the other on this important facto
Strong statistical support is found f
the positive effects of (1) the decline
the number of persons for whom t
average housewife has responsibilit
(2) the rise in the level of educatio
(3) the expansion of occupational o
portunities accompanying the rise
tertiary occupations, and (4) t
shorter workweek.

The declining participation of ma
14 to 24 years of age in this and oth
countries is associated with rising lev
of education, but whether this is cau
or effect is hard to say. The declini
participation of older men prese
some baffling analytical problems. Lo
found that greater longevity, extensi
of pensions, rising real income, grea
physical inadequacy as a result of t
faster pace in industry, and the decli
in self-employment occupations ha

not been principal factors in the decline although they are often cited as such. What then is the principal explanation? At least some of the decline is apparently associated with the greater disadvantage of older men vis-à-vis younger women, because the higher education of the latter gives them a competitive advantage. Some men may be leaving the labor force voluntarily; others are being squeezed out.

Does the labor force increase in times of severe depression because secondary workers, i.e., housewives, come into the market? Long reiterates his previous criticism of the "additional worker" theory, but his explanation is not entirely satisfactory. Part of the problem lies in the limitations of enumerative census techniques.

Labor force behavior in World War II is described for the United States, Great Britain, Canada, and Germany. The greater relative flexibility of the labor force in the United States and the relatively poor job of womanpower mobilization in Germany are noteworthy parts of this discussion.

What of total labor force change over the long run? Long points out the United States has experienced a high degree of over-all stability but a high degree of instability in labor force components. This instability arises from the fact that the rising work rates of some groups in our population have just about offset the declining work rates of other groups. The influences are many. They include (1) unionization, (2) distribution of income, (3) patterns of credit, (4) leisure time activities, (5) community attitudes, (6) conditions and locations of work, (7) intensity of effort required, and (8) "fringe" benefits. With only partial information on these factors we cannot arrive at any "tight" explanation. They challenge the ingenuity of scholars in this field. At this point Long combines the approach of a modest investigator with literary flair when he says (p. 33):

> Economic forces may exert their influence mainly through social or institutional channels, which wind in much the same way as do those of a great river to sea. While the general course is there, its direction or rapidity of movement at any one time or place depends on the terrain, in a manner hidden from a lone, pedestrian explorer, able to follow its meanderings for only a comparatively short part of the way.

As in any major work of this kind, many readers will find areas of disagreement. Professor Long's heavy emphasis on the stability of the labor force can be very misleading. It is like saying that if one engineer moves his engine forward at 50 miles an hour and one moves his backward at the same rate of speed, their average forward speed is zero and hence that you have stability.

There is continual reference to the fact that household burdens of women have declined because of the decline in the birth rate and in the average family size. This is very odd reasoning. The decline ceased about twenty years ago. Professor Long ignores the fact that the labor force participation of women with pre-school-age children, although still relatively low, has risen more rapidly in recent years than that of women with older children. Are these women having more children because they can work more easily? Or do they work

more frequently in order to help support the increase in average family size?

This volume might well have been improved by two devices. First, it would have been helpful to have a summary at the end of each chapter. Second, there are many pages of detailed and tedious statistics (and their analysis) which end with the conclusion that "no significant relationship was found." Such material might have been merely summarized in the text and the detailed discussion relegated to the appendix.

Professor Long is impressed with the fact that with the workweek shrinking, more women are undertaking tasks outside the home. What about the reverse side of the coin? What about the role of men, who, spending less time in the labor market, are assuming more tasks at or "on the way" home?

Despite shortcomings, this work is a contribution of high order. It will serve as an analytical landmark for many years to come.

Miss Bancroft's volume is primarily descriptive although brief analytical comment runs through the account. The task of describing cross-section, short- and long-run labor force characteristics is accomplished entirely with data of the Bureau of the Census.

Major emphasis is on recent changes (1940-50) and current labor force characteristics. Chapter 1 presents a detailed description of the population and labor force in one year, 1956, using the monthly reports of the Current Population Survey. This is probably the best cross-section description available in the literature. Chapter 2 attempts to bring together most of the comparable data on labor force trends from the decennial censuses from 1[illegible] to 1950. Miss Bancroft's long exp[illegible] ence with the Bureau of the Cen[illegible] makes this chapter particularly auth[illegible] tative. The change in labor force sta[illegible] of married women in the last h[illegible] century constitutes one of the ma[illegible] social revolutions of our time. Ho[illegible] ever, as Miss Bancroft points out, [illegible] understanding of this major change [illegible] still very limited.

A third chapter is devoted specifica[illegible] to changes between 1940 and 1950. T[illegible] treatment is exhaustive and will se[illegible] as an important source of referen[illegible] Chapter 4 is devoted to the grow[illegible] importance of the part-time labor for[illegible] This is the most detailed discussion n[illegible] available in the literature. The rise [illegible] the part-time labor force is closely [illegible] sociated with the rising participation [illegible] married women. The fifth chapter co[illegible] tinues the analysis of women workers [illegible] terms of those who can be classed [illegible] secondary workers. The discussion ce[illegible] ters around their contributions to to[illegible] family income and their occupations.

In a final chapter Miss Bancroft p[illegible] sents four projections of the labor fo[illegible] to 1975, based on four different sets [illegible] assumptions. Most provocative is [illegible] one based on the extrapolation of tre[illegible] from 1950 to 1955. The author poi[illegible] out, as have others, that a new era [illegible] manpower will begin in this coun[illegible] about 1965 when the rising birth r[illegible] after 1935 and especially after 1945 [illegible] result in an annual increase of ab[illegible] one million new workers between [illegible] ages of 20 and 35 in contrast to rec[illegible] increases of only a little over half t[illegible] much. Her bibliography is brief [illegible] excellent. Technical notes in the [illegible]

pendix will prove a solace to students harassed by the discontinuities of census data.

Two minor criticisms may be made. The discussion in some sections is detailed — unnecessarily so — to the point of weariness. Additional details could have been placed in the appendix or left for the reader to observe in the 96 tables of the text. Secondly, although the nonwhite population is about 10 percent of the total it occupies 50 percent of the discussion in some chapters, thus distracting from continuity. The nonwhite data might well have been developed in a separate chapter.

Although these two works are complementary in a general sense, the authors, as might be expected, have some areas of disagreement. Professor Long makes much of the negative relationship of wages and wives' work rates, at least until very recently. Miss Bancroft doubts that the relationship was ever very strong. She rightly emphasizes the non-wage factors now determining labor force participation trends. Professor Long dismisses recent increases in public and private pensions as a minor factor in the declining participation of older men. Miss Bancroft believes they are important.

Both of these authorities agree that the decline in labor force participation of older men and the decline in family responsibilities of women over 35 raise some of the most acute social and psychological questions of our time. Our answers thus far are unsatisfactory.

Finally, both authors agree that the study of the nation's manpower resources has matured in the last ten years for two reasons. First, prior to 1950 economists were certain about the existence of a simple relationship between wages and labor supply. It was negative. Women worked when family income was low and left the market as it rose. Today the simple explanation, if it ever were true, no longer holds. Second, as a result of the development and expansion of the monthly sample census of the Bureau of the Census, we now have a large and growing storehouse of information not previously available. The analysis of this wealth of data has just begun. It promises rich rewards in understanding our most important resource — the human being.

John B. Parrish

University of Illinois

Organizations. By James G. March and Herbert A. Simon (New York: John Wiley, 1958. Pp. xi, 262. $6.50)

This book will prove to be an important milestone in the evolving theory of organizations. It provides a highly concentrated, organized survey of the research and writing on the theory of organizations with primary emphasis upon the studies of human behavior in organizations. The major contribution of the authors lies in the collection and restatement of the existing knowledge concerning organizations. However, new ideas will be found by the careful reader throughout the book. It is not a textbook but it should be required reading for every serious student of organizations.

To many readers the title of the book may be misleading and this may be accentuated by the expectation that

this book will present a developed theory of organizations. The authors state at the outset that "This book is about the theory of formal organizations." They further limit their treatment of the subject through their concept of organization theory. They state,

> Propositions about organizations are statements about human behavior, and imbedded in every such proposition, explicitly or implicitly, is a set of assumptions as to what properties of human beings have to be taken into account to explain their behavior in organizations.

This statement combined with some others in the text appear to limit their consideration of organization theory to the study of the behavior of rational human beings in formal organizations operating in a benign world.

The expositional device used by the authors to provide a logical organization for the book will lead to an unnecessary amount of criticism on the part of students of management. They start out by examining a few propositions in "classical" organization theory, which includes both scientific management and administrative management theory. These propositions are viewed as treating the employees as "*passive instruments* capable of performing work and accepting directions, but not initiating action or exerting influence in any significant way." Viewed from this standpoint the classical theory is regarded as having five basic limitations:

> (1) The motivational assumptions underlying the theories are incomplete and consequently inaccurate. (2) There is little appreciation of the role of intraorganizational conflict of interests in defining limits of organizational behavior. (3) The constraints placed on the human being by limitations as a complex informati processing system are given little consid tion. (4) Little attention is given to role of cognition in task identification classification as well as in decision. (5) phenomenon of program elaboration ceives little emphasis.

These five limitations are then u as the topics of the last five chapters the book. Unfortunately, this may le many students of management to to the defense of the classical sch which they feel is under attack rat than to look at the positive contri tions made in this book to the furt development of the theory which w initiated by the members of that sch of thought. The authors could ha avoided much of this criticism by little less dogmatism on this subject.

Those interested in understandi business organizations will find ma disappointments in this book. The a thors have limited their discussion most exclusively to the employee a other participant groups such as sto holders, and customers are largely nored. The limitations of the analy imposed by this narrow frame of ref ence is especially evident in the chap on conflict. However, an author m always place some limitations upon t scope of coverage. If the student business organizations is inclined to disappointed in the deficiencies of t book, he should also be grateful th such wide vistas of research in this a of interest have been opened up for consideration. The authors can be sured that their objective of stimulati study and research in organizations a

business organizations in particular has been achieved.

John T. Wheeler
University of California (Berkeley)

International Financial Transactions and Business Cycles. By Oskar Morgenstern (Princeton: Princeton University Press for the National Bureau of Economic Research, 1959. Pp. xxvi, 591. $12.00)

Statistics adequate to analyze the international spread of business cycles cover only recent years when generally free market forces have been obliterated in the trade between nations. How then does one analyze the workings of the international transmission of business cycles in their simplest form, unobscured by economic controls? This is Morgenstern's dilemma and he has grappled with it well by looking at the gold standard era and dealing with symbols—interest rates, exchange rates, and security prices instead of the financial flows themselves. In so doing, the author has produced a classic in technique, a definitive post-mortem of the working of the gold standard from 1870 to 1914 and from 1925 to 1938, but has taken only a first step in explaining international cycle transmission, as he readily admits.

Morgenstern finds on the basis of his examination of short-term interest rates and exchange rates that money markets in principal nations tend toward harmony of action, suggesting that the flow of funds on short term is an important element of their interdependence. But the trail is tortuous, for interest rate differentials between nations must be adjusted for the risks of exchange rate fluctuations and this involves an exploration of the workings of the gold standard. It is perhaps in part because of the imperfections of the gold standards that Morgenstern finds that the link between nations is by no means rigid but varies over the stages of the cycle, being best near peaks or crises and poorest in times of relative inactivity. In any event it is short-term rates and money flows that seem to the author to be the principal factors in financial interaction among nations.

Less space is spent analyzing the correspondence between nations of long-term interest rates and security markets. The author concludes, however, that these areas of transmission of fluctuations may be less important than the short-term funds area even though the former do show correspondence of action between nations, particularly at cyclical peaks or financial crises. Problems of definition, of adequate statistics, and of logic of causation seem more excusable here; but the reader is left with the feeling that just a little more digging might have produced more on the important subject of capital flows.

Not the least of Morgenstern's contributions is what he has to say about the evolution of money and capital markets over the years in his four principal nations—the United States, Great Britain, France, and Germany—conclusions that well deserve a place in economic histories of the countries concerned. A major finding is that the connection between nations was seemingly broken by World War I and never quite re-established in the same way.

His explanations of events and changes in relationships between nations seem most plausible.

The high point of this book is not what Morgenstern has to say about the international transmission of business cycles but rather his findings on how the gold standard actually operated. He demonstrates that the gold standard was, contrary to popular thinking, a very flexible system: gold flowed oftentimes well before the conventional gold points were reached, the gold points themselves were not absolute, and exchange rates frequently violated the gold points for considerable periods of time. In an important contribution to analytical techniques, the author quantifies the degree of effort made by nations through short-term interest rates and exchange rates to attract funds. Though all economists will profit by reading Morgenstern's chapters on the workings of the gold standard, if for no other reason than to see how the conventional explanation glosses over imperfections, probably few will join in the author's view that an adaptation of the theory of games might fit the facts better than the conventional theory of equilibrium of exchange rates under the gold standard.

This is a scientific work and the author is duly cautious about reaching his conclusions, with the consequence that the results seem meager and the style difficult. However, knowledge comes in little pieces and it would be strange if this book did not form the foundation of many other profitable pieces of research in this fascinat field.

THOMAS R. ATKINSO

New York, New York

National Wages Policy in Peace (*War.* By B. C. Roberts (Lond George Allen and Unwin, 1958. 180. $3.50)

In his earlier works on union adm istration and the Trades Union C gress, Ben C. Roberts has establis himself as a leading interpreter British unionism. In the current v ume he tries his hand at a key probl of the Western world: wage policy relation to inflation. Although his ar ysis is not likely to achieve for him equally imposing position in the field wage-price policy, the volume is a u ful addition to the literature on t subject.

Nine of the book's eleven chapt are devoted to a systematic exami tion of national wage policy in Brita the United States, Sweden, Austra the Netherlands, and Germany. T survey leads to the view that a centra administered national wage policy c not be relied upon to prevent inflati and that other policies must be adop to maintain economic stability. T author's search for alternatives to wa price controls includes monetary-fis policy, investment controls, and effo to increase output and productivi His choice is centered on moneta fiscal policy to reduce effective dema below an inflationary level.

The ineffectiveness of wage cont as an anti-inflationary device in den cratic countries is seen to stem fr

democracy itself. Government controls must be based on the consent of the governed, and at best, the inflationary force is merely dammed up while the cooperation is forthcoming. Sooner or later, pressure is exerted for relaxation of controls; the pressure cannot be resisted by democratically elected governments; and the repressed inflation is translated into open inflation.

In spite of great differences in American and British methods of wartime wage stabilization, Roberts finds that they had one thing in common. Ultimately they both rested on the willingness of employers and unions to accept and abide by the policy decisions of the authorities. Although American policy was built on a more extensive legal framework, it was basically like the British in the voluntary nature of its wage restraint; and like the British, it was abandoned when it no longer served the economic interests of the private parties.

From his examination of Swedish experience, Roberts concludes that the centralization of wage bargaining, under powerful union and employer confederations, provides no guarantee that wages and prices will not rise in response to the levels of aggregate demand. In Australia he finds that the Commonwealth system of compulsory arbitration has been unable to prevent inflation in the past and is unlikely to be more successful in the future. Arbitration decisions had to accord with the wishes of both sides of industry, and if awards pressed too hard, ways were found to accommodate upward adjustments.

The Dutch established a highly elaborate system of centralized wage controls, but here, too, the postwar movement of wages and prices closely paralleled experience elsewhere. Temporary interruptions in the path of inflation could be attributed more to monetary-fiscal controls than to wage policy. Eventually, as in other countries, governing authorities were forced to succumb to the pressures for higher wages and prices. In Western Germany, on the other hand, substantial economic stability has been achieved in the postwar period without controls. This may be attributed, however, to the remarkable expansion of productivity, the flood of immigrants from Eastern Germany, and/or the weakness of the union movement. Roberts feels that Germany's time of economic testing may be yet to come.

Finally, the author reviews recent wage-price developments under the Conservatives in Britain. He finds the familiar strains of union pressure and the unwillingness of government to incur union wrath by adopting the necessary measures to reduce that pressure.

The general conclusions, then, are that wages respond to the levels of total demand, that wage controls and centralized wage policies can do little to stem the wage rise dictated by total demand, and that the only effective recourse is to restrict the levels of total demand. Unions cannot be expected to exercise restraint in the face of rising demand which permits costs to be passed on without affecting employment. But if aggregate demand is kept at the appropriate level through monetary-fiscal policy, then if unions push up wages too fast they will merely suc-

ceed in creating additional unemployment. The author expresses the belief that these considerations would prompt unions to moderate their wage demands.

Thus Roberts' international analysis of wage-price relationships leads him to the policy dilemma that some other economists have reached without so long a journey. In a democracy, the appropriate way to combat inflation is through monetary-fiscal policy. This may, however, restrict the rate of economic growth and result in a departure from full employment. Roberts may be correct in his view that the departure need not be substantial to force moderation in union wage demands. Then again, he may be wrong; and politicians cannot be unmindful that elections are lost under the burdens of unemployment.

Ultimately, then, the author — like other explorers in the realm of wage-price policy — must fall back on exhortation to unions and management to behave "responsibly" in the public interest. More than he appears to recognize in this book, his policy proposal calls for political as well as economic restraint. Wage-price controls and restrictive monetary-fiscal policy have this in common: They are both based on the consent and cooperation of private political-economic pressure groups. Although the problems involved in direct controls over inflation are exhaustively treated in this book, insufficient attention is accorded the possible ill consequences of restrictive monetary-fiscal policies and the likelihood of opposition to their adoption.

Earlier international comparisons of labor relations have had little to say about macroeconomic wage-price r tionships. In focusing on this quest Mr. Roberts has made a worthw contribution to the literature on c parative labor relations systems.

Gerald G. Somer

University of Wisconsin

The Rise of the British Rubber Ind try During the Nineteenth Cent By William Woodruff (Liverpo Liverpool University Press, 1 Pp. xvii, 246. 35 shillings)

Most American readers are aw that in our early industrial deve ment we were handicapped by lack know-how and a scarcity of ski artisans, and that a significant elem in our early growth was the mig tion to America of English skilled wo men. Readers of William Woodru *The Rise of the British Rubber Indu* who are not already familiar with details of rubber technology and ind trial development will, therefore, fin gratifying to learn that American vention and technology played a crit role in England's rubber industry pre-Civil War years. The developm by Connecticut's Charles Goody of the process of vulcanizing with sulphur, white lead, and the applica of heat contributed significantly to development of the process in Engla

United States artisans also playe major part in the development of of the three major early rubber c panies in the British Isles. The N British Rubber Company which es lished a factory in Scotland in 1856 "entirely American in leadership, eq ment, and ownership." The firm

Stephen Moulton was organized by an Englishman returned from America, under supervision of an American mechanic, according to guide lines based on American practice and with initial assistance from skilled American workers. From this firm of Stephen Moulton of the 1840's there evolved Spencer, Moulton & Company, a specialized small firm whose history provides the central focus of this volume.

The objective of Dr. Woodruff's study has been to illuminate the setting in which this rubber manufacturing firm in the West Country conducted business. In the process, he provides a vivid and intimate account of nineteenth-century conditions affecting rubber manufacture and business conduct generally.

Dr. Woodruff's discussion of Moulton's rubber products is related to an analysis of this firm's over-all policy. Rubber clothing such as capes and leggings was the chief initial product, but this was early replaced by industrial items designated "mechanicals." The Moulton firm's chief product over many years was a type of rubber spring which took the form of a number of simple discs separated by metal plates. Management evidently gave little heed to such newer items of the 1890's as pneumatic tires and insulation for electric wire. By eschewing the newer items, the firm achieved stability, perhaps, but lost a relative share of a rapidly expanding market. Employment data given by Woodruff reflect this aptly: Moulton's labor force comprised over 4 percent of United Kingdom rubber workers in 1860 and well under 1 percent at the end of the century.

In his discussion of marketing, Dr. Woodruff treats Moulton's sales in relation to total rubber product shipments and in relation to American shipments to England. In the 1840's and 1850's Moulton's sales were handled by general merchants. As the Moulton firm shifted increasingly to production of springs for railway cars, they distributed an ever larger portion of their output through George Spencer & Company of London, which specialized in rubber mechanicals for railways. Half of the Moulton output was sold through the Spencer firm by the late 1860's. In the 1890's the two firms merged and the venture was incorporated.

There is a thoughtful chapter on the role of the British patent system in the development of the industry. In the 1840's the British patent law required only that applicants file. There was no investigation. Hancock filed, in England, some months prior to Goodyear, after he had examined specimens of vulcanized rubber prepared by Goodyear. Goodyear's contribution antedated or influenced both the process used by the dominant Macintosh group in Lancashire, which held a patent taken out by Hancock, and the process used by Stephen Moulton, who held a patent based on an invention by the American, James Thomas. It also provided the basic patent granted to Newton on Goodyear's behalf in 1844 for the North British Rubber Company established in Edinburgh.

On the basis of his prior filing, however, Hancock was able to sustain a patent which came near to giving him a monopoly of the English market. He could even exclude American products

made here under Goodyear's patent. Woodruff explores the issues involved in the effort to foster industrial innovation through patent grants. This chapter could stand on its own as a contribution to a complicated issue of public policy.

This volume will be acclaimed by scholars as providing needed intimate detail on how English nineteenth-century small business was conducted. The businessman who reads the book for description of past business procedures will find the study rich in detail and analysis. For anyone interested in rubber manufacture, it is, of course, a "must."

THEODORE F. MARBURG
Marquette University

The Motivation, Productivity, and Satisfaction of Workers: A Predictive Study. By A. Zaleznik, C. R. Christensen, and F. J. Roethlisberger. (Boston: Harvard University, Graduate School of Business Administration, Division of Research, 1958. Pp. xxii, 442. $6.00)

This volume presents a paradox of good conceptualization and poor actualization. As the title implies, it is concerned with three of the most "slippery" concepts underlying organizational behavior. In their efforts to develop a productive study, the authors first developed a fairly elaborate, theoretical schemata and then attempted to test the hypotheses generated by their model in an extremely intensive field study of 47 workers making up a production department of a manufacturing company.

The volume, in research monogr tradition, begins with a definitior the problem, the data-gathering m ods, and the sample. This section d onstrates much care and thought on part of the researchers and would b invaluable aid as a training device a student interested in field researcl

Part 2 is devoted to the developm of a conceptual framework to cope w the problem of worker motivat Three major theories are proposed. first is a reward theory and basic proposes that "productivity and sa faction vary with rewards the indi ual (worker) receives from mana ment and the group . . ." The sec is labeled a "theory of distribu justice." Briefly, it is proposed t satisfaction and productivity would a function of two status facto (1) investments—factors that a wor brings to his job from his past or p into his work on the job, for exam age, sex, and ethnicity, and (2) rewa or returns — status factors a worker pects to get out of a job, such as and interesting work. The final the is that of social certitude, that is, sta congruence or ambiguity. The tre ment is sophisticated, and althou much of the pertinent literature is nored (at least with regard to spec reference), the resultant theoreti conceptualizations integrate much what has been written concerning topic of "why men work."

Part 3, devoted to a presentation results, is a maze of complexity a ambiguity. Figure after figure, ch after chart deluge the reader. T results do not seem to merit such

tailed treatment. Moreover, owing to the nature of the clinical research design and the qualitative nature of the data, the analysis is crude not only in terms of precise statistical analysis, but in terms of the more casual type of trend analysis as well. The design unfortunately forces most of the analyses into the confines of four subgroups where the small initial sample spreads too thin for rigorous manipulation or interpretation.

Part 4 is a refreshing return to the authors' forte, theory. In this section the model is put to test and is found lacking in many respects. One must give a good deal of credit to the authors, however, in that they face up to the weaknesses of their study with considerable candor, pointing up errors in logic as well as errors in method. Finding many of their hypotheses unconfirmed, they attempt to salvage some meaning from their experiment. By resorting to case history material (much superior to their rather naïve attempts at objectifying and quantifying), they bring to life their basic theories — if not their detailed hypotheses.

Part 5, "Implications for Administration," is an attempt to develop their rather meager findings into an action program for industrial management. Basically, this section rests upon previous theorizing to a much greater extent than upon their findings. As is so often the case, this section ends up by being an espousal of social science doctrine. One must admit, however, that it *is not* a pretentious presentation and that it *is* a good application of both the theory proposed and the trends discovered.

Although the findings of this study are limited and the subtitle of the volume, "A Predictive Study," is for the most part unrealized because of an experimental design vastly inferior to the theoretical base, several trends bear note. (1) The work group exerts a significant effect upon the behavior of workers; and rewards and punishments from that source seem to outweigh the sanctions of management. (2) Low worker satisfaction does not predict low productivity; this is a finding verified by other research data. (3) Traditional organizational patterns, negating all but material rewards for the worker, run the serious risk of being unable to meet effectively the problems of worker motivation, satisfaction, and productivity.

HJALMAR ROSEN
University of Illinois

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